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This listing of projects includes those environmental and outdoor education projects which were funded under Title III of the Elementary and Secondary Act of 1965. The types of programs listed are in-service, on-school-site, day center, and resident programs. Information concerning the director of the project, the school district and schools served, and the number and types of students involved is provided. Information concerning facilities, funds, objectives and outcomes is also discussed. An appendix of listings of programs in other states is also provided. (BC)

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Projects to Advance Creativity in Education

Title III - Elementary & Secondary Education Act of 1965

National Listing
of
Environmental & Outdoor
Education Projects

Compiled by

The New Jersey State Council for Environmental Education

SE005 425

In-Service Programs

On-School-Site Programs

Day Center Programs

Resident Programs

PACE

OUTDOOR AND ENVIRONMENTAL EDUCATION PROJECTS

NATIONAL LISTING

produced by:

THE NEW JERSEY STATE COUNCIL for ENVIRONMENTAL EDUCATION

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PROJECTS TO ADVANCE CREATIVITY IN EDUCATION

TITLE III - ELEMENTARY AND SECONDARY EDUCATION ACT OF 1965

ENVIRONMENTAL AND OUTDOOR EDUCATION

PROJECT DESCRIPTIONS

The plan for this booklet of descriptions of Title III environmental and outdoor education projects was conceived when the staff of the New Jersey State Council for Environmental Education began to plan for the National Conference on Environmental Education held on May 19-22, 1968, at Skylands Manor, Ringwood, N. J.

Each Environmental and Outdoor Education project organized under the Elementary and Secondary Act of 1965 was invited to furnish its description of a form provided by the Council. These descriptions are reproduced in this booklet in the exact form in which they were submitted. In a few cases the descriptions were not received before the printer's deadline and these projects are listed in back of the booklet as they appeared in a publication entitled, PACE Outdoor Education Projects, prepared by the U.S. Office of Education, Division of Plans and Supplementary Centers, November 8, 1967.

The purpose for compiling this information was to furnish the conferees who attended the National Conference on Environmental Education a concise compilation of the Environmental Education projects currently in operation. A copy was sent to each project which did not have a representative at the Conference. Single copies are available by writing to The New Jersey State Council for Environmental Education, 355 Route 46, Mountain Lakes, New Jersey 07046.

PROJECT DESCRIPTION:

Project Title: Napa Experimental Forest *USOE #* 67-2530-1
Director's Name and address: Robert R. Wells, 1000 Sage Canyon Rd., St. Helena, 94574
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 200
Total population of school districts (LEA's) being served: 60,000
Per cent: Inner City: 10 *Urban:* 60 *Rural:* 30
Total number of students in school districts (LEA's): 14,000
Per cent: Public: 95 *Non-Public:* 5
Total number of students being served by project: 3,500
Per cent: Public: 95 *Non-Public:* 5

PROJECT SYNOPSIS

CONTEXT:

1. To establish a 360 acre outdoor laboratory for use in various curriculum disciplines requiring a direct experience.
2. To provide a sequential series of process oriented experiences for children from grades K through 12.
3. To create an educational alternative for those junior high school boys unable to relate to the regular school environment and concentrate on a strong delinquency program.

INPUT:

1. Totally federally funded (ESEA, Title III), (Current budget $87,000).
2. Use permit from the City of Napa to utilize 360 acres of Lake Hennessey watershed for our use.
3. Leasing of relocatable classroom facilities to provide for an indoor museum and study space.

PROCESS:

Science Study - to present students with "discrepant events" from a natural environmental setting and encourage them to formulate, investigate and theorize concerning their self-discovered problems.

Forestry Program - to provide educationally innovating learning situations in the pre-vocational forestry and the remedial academic programs for educationally handicapped students.

PRODUCT:

Science Study - Six different objective evaluation instruments have been designed, disseminated and analyzed. The product is far too complex to be discussed in review.

Forestry Phase - Crew members' average attendance has increased 27%. Evaluation in this area is extremely difficult since instruments to measure attitudes of this type of boy leave much to be desired. We have used one objective evaluation instrument for the parents of this group.

PROJECT DESCRIPTION:

Project Title: Orange County Schools Marine Science Floating Laboratory *USOE* #67-3799

Director's Name and address: Ronald B. Linsky, 1104 W. 8th St., Santa Ana, 92701

Number of School Districts (LEA's) being served: 1

Service coverage in square miles: 650

Total population of school districts (LEA's) being served: 270,091

Per cent: Inner City: 30 *Urban:* 70 *Rural:* 0

Total number of students in school districts (LEA's): 400,021

Per cent: Public: 90 *Non-Public:* 10

Total number of students being served by project: 10,000

Per cent: Public: 90 *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT:

The Orange County Schools Marine Science Floating Laboratory offers the participating students a tangible experience promoting the understanding of the oceans by means of a "Hands-On Practice of Science." The on board program also encourages the students' awareness of the problems of conservations and the impact of man on the marine environment. The program is also activating the marine sciences as a permanent part of participating districts curricula.

INPUT:

The Floating Laboratory is a 65 foot modified sport fishing vessel leased under an $84,169.00 ESEA Title III grant (#67-3799). The grant personnel include a Program Director, On Board Instructor and Teaching Assistants. The vessel is equipped with general oceanographic gear, i.e. bathythermograph, trawl net, plankton net, microscopes, dredges, Peterson grabs, Van Dorn Water samplers, Nansen Bottles, Current Meter, Secchi Disc, pH meter, Fathometer, and Radio Direction Finding equipment. The Fury II cruises in the waters off Orange County, California, between Dana Point on the south and Seal Beach to the north.

PROCESS:

The fifty students participating on each cruise are active, working members of the crew. They are responsible for using all the equipment to properly collect and record the scientific data from the environment. They are also responsible for plotting the ship's exact position while at sea, on station, or underway while trawling. The data collected is processed and disseminated to the leading West Coast Oceanographic institution, i.e. Scripps, University of Southern California.

PRODUCT:

The "Hands-On" experiences gained by the students will foster attitudinal changes toward an appreciation of the marine environment and the methods of science. The attitudinal changes desired are those of the third level of Bloom's Taxonomy, Valuing. This phase of the program is being carried out by a project developed by the Turner-Yeremian Marine Science Inventory, a semantic differential instrument for detecting attitudinal changes. The instrument has been given to 5,000 of the 10,00 participating students.

PROJECT DESCRIPTION:

Project Title: Cooperative Summer School Camp *USOE* #67-00439-0
Director's Name and address: F.K. Howerton, Adam State College, Alamora, 81101
Number of School Districts (LEA's) being served: 14
Service coverage in square miles: 7,200
Total population of school districts (LEA's) being served: 39,500
Per cent: Inner City: ____ *Urban:* ____ *Rural:* 100
Total number of students in school districts (LEA's): 11,296
Per cent: Public: 98 *Non-Public:* 2
Total number of students being served by project: 2,400
Per cent: Public: 95 *Non-Public:* 5

PROJECT SYNOPSIS

CONTEXT:

Provide experience that will increase knowledge, develop healthy attitudes, and self-understanding basic to sound physical and mental health.

INPUT:

Location: 160 acre ranch in a high mountain valley.

Natural Resources: streams, reservoirs, mining, lumbering and geological formations.

Money: Title III ESEA grant plus local funds.

PROCESS:

Academic Camps: Science, Art, Music, Drama and International Relations

Culturally Disadvantaged Camps: grades 3 - 6

Diagnostic Camps: grades 3 - 6, screening and individual testing

Experience Camps: grades 7 - 8

PRODUCT:

The school administrators, teachers, students and parents, who are working with or participated in the program, have shown through detailed studies that we have and are meeting our objectives. Our on-going program, as a follow up to the testing done at camp with a full-time school psychologist, is outstanding.

PROJECT DESCRIPTION:

Project Title: ESEA Title III "Dare-to-Care" *USOE* #67-5280
Director's Name and address: Joe Gilas, Commerce City
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 54
Total population of school districts (LEA's) being served: 29,190
Per cent: Inner City: ____ *Urban:* ____ *Rural:* ____
Total number of students in school districts (LEA's): 8,600
Per cent: Public: 100 *Non-Public:* ____
Total number of students being served by project: 8,600
Per cent: Public: 100 *Non-Public:* ____

PROJECT SYNOPSIS

CONTEXT:

To increase the effectiveness of our students as human beings - as thinking, feeling, acting and interacting individuals.
To design and implement an action-interaction-oriented curriculum which will "stretch" students, increasing their confidence and ability to meet challenges and to overcome difficulties, to tolerate frustrations, to abide by rules and regulations, to measure up to the level of their capabilities, to show concern for their fellowmen, and to accept responsibility.

INPUT:

Our grant has been increased from $85,000 the first year to the present $139,000. The time involved is the entire year. The facilities are school, metropolitan Denver and the entire area of the state of Colorado. The Yampa River and the Rocky Mountains are the natural resources employed by the program. We have purchased $10,000 worth of equipment. The faculty from the high school and District 14, and two outdoor-oriented instructors comprise our personnel.

PROCESS:

There are twenty-five small projects within the large project that are action-interaction-oriented activities.

These activities are stretching, stimulating and motivating the students because of their adventurous nature.

PRODUCT:

The overall aim of the project has been to assist in building sound values and positive attitudes, hence every project has made a distinct contribution. One that may be mentioned is Project Pride in which the students have undertaken to beautify the high school grounds by planting and caring for grass and shrubbery. The improved appearance of the school yard, as well as the personal investment students have made in time and work appears to be making them aware of their personal responsibility for the looks of their community.

PROJECT DESCRIPTION:

OEG-1-7-67

Project Title: Talcott Mountain Science Center *USOE* #-2895-2935

Director's Name and address: Donald P. LaSalle, Avon,

Number of School Districts (LEA's) being served: 15 public, private, & parochial

Service coverage in square miles:

Total population of school districts (LEA's) being served:

Per cent: Inner City: Urban: Rural:

Total number of students in school districts (LEA's):

Per cent: Public: Non-Public:

Total number of students being served by project:

Per cent: Public: 53 *Non-Public:* 47

PROJECT SYNOPSIS

CONTEXT:

A unique regional school, devoted to giving youngsters direct experience and thus involving them in the sciences of astronomy, meteorology, and related subjects. The main objective will be to have the students individually and in small groups, under the direction of trained personnel, perform experiments and work with scientific equipment. This will permit them to become actually involved in developing the critical skills needed for scientific investigation.

INPUT:

Resources include the staff (5) made up of director, assistant director, two instructors, and one technician. A mountain top science center with student observations, meteorological station, planetarium, seismograph, radio electronic facility and air pollution station. Attendance of students at the center and reciprocal visits of the center's staff to the co-operating schools, with a program comprising lecture, film, and laboratory sessions.

PROCESS:

(1) To permit students to work in a natural physical environment conducive to learning by doing in the science of astronomy, meteorology and radio.

(2) To provide exemplary teaching and facilities for instruction of the Valley Area and to provide specialized instruction and equipment in studying advanced scientific subjects which are not taught adequately in local schools and can be provided for more effectively on a centralized basis.

(3) To bring about unprecedented learning by active student involvement in the learning processes of the earth and space sciences.

PRODUCT:

Results will be evaluated by: (a) A pretest of knowledge in the subject matter areas, coupled with an analysis of achievement tests presently in use, (b) achievement tests following instruction, (c) teacher evaluation, (d) an evaluation of the amount of participation of students as related to the areas of astronomy, meteorology and radio, (e) submittal of reports of progress by students involved in individual research projects, which will be evaluated by teachers, astronomers, meteorologists and radio experts.

PROJECT DESCRIPTION:

Project Title: Conn. Outdoor Projects in Educational Services *USOE* # 68-5094
Director's Name and address: Duncan McDougall - Box 259, Woodbury, 06798
Number of School Districts (LEA's) being served: 11
Service coverage in square miles: 440
Total population of school districts (LEA's) being served: 175,400
Per cent: Inner City: 50 *Urban:* 34 *Rural:* 16
Total number of students in school districts (LEA's): 33,014
Per cent: Public: 90 *Non-Public:* 10
Total number of students being served by project: 950 (at this point)
Per cent Public: 87 *Non-Public:* 12

PROJECT SYNOPSIS

CONTEXT:

That outdoor experiences and related activities can be motivational devices used by teachers to aid students to become better achievers academically.

INPUT:

79,000 dollars per year for operating expenses. There is a good deal of open space lands, both private and public, which are available for programing purposes. Since the program is basically curriculum development and programing, the need for large facilities is not a problem for this project.

PROCESS:

Development program in the following:

1. local land development and teacher training for use thereof,
2. volunteer and specialist training for in-school use,
3. teaching aids,
4. development of outdoor laboratory program for vocational agricultural students,
5. outdoor laboratory program for high interest students,
6. special curriculum development and programing for children with special problems,
7. outdoor education for retarded children,
8. school camping.

PRODUCT:

It's anticipated that if the programs are successful they will be included in the basic school programs in the towns involved.

PROJECT DESCRIPTION:

Project Title: Outdoor Laboratory *USOE #* 66-1886
Director's Name and address: Catharine Y. Bonney - 83 E. Main St., Newark, 19711
Number of School Districts (LEA's) being served: 2
Service coverage in square miles: 75
Total population of school districts (LEA's) being served: 40,000
Per cent: Inner City: 0 *Urban:* 80 *Rural:* 20
Total number of students in school districts (LEA's): 12,771
Per cent: Public: 94 *Non-Public:* 6
Total number of students being served by project: 7,217
Per cent: Public: 90 *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT:

The major objective of the Outdoor Laboratory is to develop an outdoor education area through which a knowledge, understanding, and an interest in nature or natural phenomena may be reached by those who make use of the facility. Conservation is the underlying theme for all activity at the nature center. Children study the flora and fauna as well as the geological features of the park. Here access is provided to a site where the ecology of natural communities can be preserved and studied. With this project both public and non-public schools can work together toward the complete education of children.

INPUT:

A full-time teacher-naturalist and part-time director, secretary and maintenance man staff this project. A trailer-office for the teacher at the site is tied by phone to the administration office where the director and secretary are housed. City equipment and labor helped establish the headquarters at the Outdoor Laboratory. Technical maintenance of the park facility is provided by the school district. Money for salaries, equipment, and operational expenses are provided through federal funds. Bus transportation for classes coming to the center is the responsibility of the project. A science museum has been established nearby and this with its grounds provides the setting for winter indoor-outdoor study.

PROCESS:

Each elementary class, as well as some secondary science groups, make at least one visit to the park. Activities scheduled at the center are related to the curriculm for the particular grade. Prior to the Outdoor Laboratory trip the teacher-naturalist meets with the students and teachers to prepare them for the visit. An evaluation form is completed by each teacher-participant. A two-week summer school was held for a few sixth graders from selected schools. Here children received practical laboratory experience in the out-of-door.

PRODUCT:

The enthusiasm of students over their experiences at the Outdoor Laboratory was even greater than was anticipated. The majority of teachers rated their visit as very worthwhile. Special conferences with those who were a part of the summer program revealed that learnings at the park had carried over into their regular school year. Agencies related to this project's endeavors praise it highly.

PROJECT DESCRIPTION:

Project Title: Resource - Use Outdoor Education Center *USOE #* 67-04178-0
Director's Name and address: C. H. Kindred - P.O. Box 938, Perry, 32347
Number of School Districts (LEA's) being served: 6
Service coverage in square miles: 4,240
Total population of school districts (LEA's) being served: 59,194
Per cent: Inner City: ____ *Urban:* ____ *Rural:* 100
Total number of students in school districts (LEA's): 16,228
Per cent: Public: 100 *Non-Public:* ____
Total number of students being served by project: 16,228
Per cent: Public: 100 *Non-Public:* ____

PROJECT SYNOPSIS

CONTEXT:

A. Maximum use should be made of the natural enviroment and the facilities, yet preserve the integrity of the land and natural resources. B. The learning experiences should help in the understanding and appreciation of the natural resources of the area and their contributions to the well-being of people. C. The program should extend and supplement the classroom. D. Through action research the best instructional practices and learning materials should be used in order to provide effective educational experiences in outdoor and resource-use education for the area. E. The program and materials at the Center should provide an excellent setting for in-service education of teachers and in acquiring effective methods of instruction.

INPUT:

The Program Grant under Title III is for three years - $348,178. It is projected to raise from private sources $954,045 for Capital Outlay. The Center site contains 118 acreas of typical Florida flatwoods with a creek, spring and cypress pond areas which typify the Florida landscape. The site will contain. nature trails, interpretive center, library and media center, craft center, laboratories and workrooms for special interest and study, a group camp for several days or a school week. The staff will consist of a Director, Farm and Game Manager, Secretary-Bookkeeper, Forester, Naturalist, Conservationist and Home Economist.

PROCESS:

The program for the Outdoor Education Center has two divisions: a program for schools, including community service and continuing education, and teacher education. The first phase includes a range of educational activities from preschool through community college. The land and facilities will serve as a learning center to extend and enrich the offerings of the schools, with particular reference to outdoor and resource use education. Outdoor Laboratory for field experience, exploration and research. Outdoor schools whereby classrooms and special interest groups may have a sustained experience in a group camp.

PRODUCT:

The outdoor experience will increase the power of observation, stimulates interest and improves the quality of experience, provides materials for learning, provides opportunity to acquire outdoor skills, extend the classroom beyond the four walls, offer opportunities for exploration and research, provide new areas for vubalizing and communicating help supply knowledge and add mastery, broaden the scope of teaching ability and knowledge of teacher.

PROJECT DESCRIPTION:

Project Title: Fernbank Science Center *USOE* #66-1353
Director's Name and address: Dr. Lewis S. Shelton - 555 N. Indian Creek Rd., Clarkston
Number of School Districts (LEA's) being served: entire state
Service coverage in square miles: entire state
Total population of school districts (LEA's) being served:
Per cent: Inner City: 30 *Urban:* 66 *Rural:* 4
Total number of students in school districts (LEA's): entire state
Per cent: Public: *Non-Public:*
Total number of students being served by project: entire state
Per cent: Public: *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

1. To improve, supplement, and extend instruction in the natural and physical sciences in preschool, elementary, secondary, and adult education;
2. To stimulate, encourage, and develop active interest in the natural and physical sciences;
3. To develop a better informed, scientifically literate citizenry.

INPUT:

The Science Center is open seven days a week and includes a seventy acre climax forest, the third largest planetarium in the United States, an observatory housing a 36" reflector telescope, an electron microscope laboratory, a meteorological laboratory, and science reference library. The center is funded by local, NDEA, Title III, and the Metropolitan Foundation. Professional personnel specializing in the natural and physical sciences are used to staff the center.

PROCESS:

Procedures include the preparation of specific instructional units. Lectures, field study, seminar, demonstrations and discussions are provided for specific groups and for the general public. Expert assistance is provided for persons engaged in individual studies.

PRODUCT:

Evaluation of results are both objective and subjective. The number of people served, questionnaires, tests, research production, and the observation of specialists are used in varying and appropriate degrees.

PROJECT DESCRIPTION:

Project Title: Program of Outdoor Ed. For Entering 7th Gr. Pupils *USOE* #66-1492
Director's Name and address: Harry Shimada, Jr., 827 Fort Hall Ave., American Fall
Number of School Districts (LEA's) being served: 66
Service coverage in square miles: 30,313
Total population of school districts (LEA's) being served: 97,074
Per cent: Inner City: N/A *Urban:* 47.5 *Rural:* 53.5
Total number of students in school districts (LEA's): 93,152
Per cent: Public: 99.083 *Non-Public:* .017
Total number of students being served by project: 7,776
Per cent: Public: 99.083 *Non-Public:* .017

PROJECT SYNOPSIS

CONTEXT:

Focusing on maximum use of the out-of-doors and emphasizing the multi-sensory problem-solving approach, the primary objective of the project was to develop an imaginative summer Outdoor Education program for Entering 7th Grade Pupils which would serve to enrich, enhance, and reinforce the traditional classroom learning process. Such a program would necessarily enlarge pupils' understanding and appreciation of 1) the immediate environment, 2) local and state development with respect to regional and national growth, 3) man's adjustment to the demands of a changing environment, and 4) man's changing the environment to suit his needs.

INPUT:

With fiscal support originating under Title III, Elementary and Secondary Education Act, 1965, and local district contributions, the project employed three full-time staff personnel to administer and coordinate the program in the schools of the twenty-two counties of Southern Idaho. 147 students, 14 teachers, 3 student assistants, and 78 volunteer resource persons participated in last summer's nine week pilot program. The life of this project depends primarily on the human resources who man the tasks of time, providing valuable and rewarding experiences for all pupils.

PROCESS:

For the summer program, both within the local district and at the resident camp, a curriculum has been developed that attempts to reinforce those concepts taught in grades 1-6 in the areas of Science, Language Arts, Mathematics and Social Studies. The Project Staff instructs teachers on multi-sensory methods and techniques to be used in extended learning activities. Problem-solving methods are also used in approaching the concepts selected for reinforcement. Properly applied, these methods serve to develop renewed interest and a clearer understanding of the subject matter.

PRODUCT:

Anticipated Results

1. Emphasis is placed on educating and training teachers in hopes that such training will result in widespread use of outdoor education methods and techniques throughout a teacher's career, ultimately serving greater numbers of students for years to come.
2. Increased interest, added motivation, and mastery of subject matter by students as a result of direct experiences utilizing the environment in problem-solving activities.

PROJECT DESCRIPTION:

Project Title: Cataloguing the Natural Resources of Idaho *USOE* #67-04570-7
Director's Name and address: Mrs. Donna L. Parsons - Cleveland Blvd., Caldwell, 83605
Number of School Districts (LEA's) being served: 112
Service coverage in square miles: 84,000 square miles
Total population of school districts (LEA's) being served: 667,191
Per cent: Inner City: none *Urban:* 52 *Rural:* 48
Total number of students in school districts (LEA's): 84,078
Per cent: Public: 98 *Non-Public:* 2
Total number of students being served by project: 84,078
Per cent: Public: 98 *Non-Public:* 2

PROJECT SYNOPSIS

CONTEXT:

This is not an outdoor education project as such but it is closely related as its prime objective is to bring students into more direct contact with the natural resources of the state in order to increase their scientific knowledge and awareness of their surroundings. In order to achieve this, two secondary objectives concerning teachers were formulated. These are (1) to increase the knowledge of elementary and secondary teachers regarding Idaho's natural resources, and (2) to increase their competence in using this knowledge to bring students into more direct contact.

INPUT:

Since this project was funded for one year as a mini-grant, the budget is just below $25,000. Personnel consists of two full time employees, the director, (a former science teacher) and a secretary, working out of an office in the sponsoring school district in southwestern Idaho. Teacher-consultants from around the state are furnishing material, some on a fee-basis and some free-gratis. Federal and state agencies, and industry have furnished a great deal of information.

PROCESS:

Activities include searching the literature to find what is available pertaining to the natural resources of Idaho, contacting employees of state and federal agencies for information for their files and publications, contacting college professors, high school and elementary teachers, industry, private organizations, individuals and others who may have knowledge of the location of such things as mineral deposits, fossils, faults, planaria or crayfish that teachers could either visit or bring back to their classroom for study. These locations are checked by the director as time permits.

PRODUCT:

This material is being checked, verified, classified, and put into a useful form. Road logs, maps, and other helpful information will be included in field trip guides for pinpointing selected areas, and printed in a catalogue to be distributed to all elementary and secondary science teachers of the state. In-service institutes will be given to assist teachers in the use of this catalogue and the information contained therein. It is at this point that the outdoor education will actually begin, and then the teachers will have to implement the prime objective by using this information in the classroom.

PROJECT DESCRIPTION:

Project Title: A School-Community Outdoor Education Project *USOE #* 4185
Director's Name and address: Norbert Ziemer, 27 N. Main St., Crystal Lake, 60014
Number of School Districts (LEA's) being served: 6 Public - 2 Parochial
Service coverage in square miles: 20+
Total population of school districts (LEA's) being served: 7,390
Per cent: Inner City: ______ *Urban:* 80 *Rural:* 20
Total number of students in school districts (LEA's): ______
Per cent: Public: ______ *Non-Public:* ______
Total number of students being served by project: 7,390
Per cent: Public: ______ *Non-Public:* ______

PROJECT SYNOPSIS

CONTEXT:

Curriculum innovation; Scientific awareness; Conservation; Democratic living; Communication; Heritage; Aesthetic-moral-spiritual and emotional maturity; Total fitness; Professional involvement: Involvement of a community resource group; Development of a community oriented project involving education agencies and civic agencies in a common plan; Creation of a "loan library" of equipment; Materials and resource books and filmstrips; Organization of a summer program for children on a voluntary basis.

INPUT:

Cooperative effort of Crystal Lake School District 47 and Crystal Lake Park District who furnish 400 acres of woods, pond, pine area and field. Funded under Title III
Project building furnished by Crystal Lake Park District.
Materials to do soil, water, field, math, social studies, language arts and art projects are in the project building.
Mobile laboratory furnished for on-site studies in outlying areas.
Staffed by Director and secretary.

PROCESS:

Primary activity of project is to encourage teachers to take classes into field with planning help, unit of study suggestions from Director to complement the on-going curriculum and field help furnished by staff at project center. Workshops, in-service workshop days, university credit course workshop in progress, faculty meetings with project staff, laboratory demonstrations, publications of a bulletin once a month to stimulate interest.

Professional teacher committee worked on curriculum guide for two years, which has been furnished to all teachers covered by project. This committee meets at least once a month, more when planning sessions for workshops and special events are being planned. Citizens committee meets once a month to evaluate program and furnish suggestions and ideas for operation of program.

Resource survey is being conducted by both professional teacher committee, teachers in the program and citizens committee for sites, personnel and units for study areas.

PRODUCT:

Project started September 1967. To date 2,500 children with teachers have participated at the project site. Another 3,000 will have participated by June, 1968 at a project site. An anticipated 3,000 will have participated in program on school sites and neighboring areas.

Evaluation is being done by Dr. Malcolm Swan, Northern Illinois University with a series of testing and questionnaires. Evaluation is made regularly by professional teacher committee, citizen committee in their meeting and by staff at the Project Center.

The results are definitely in accord with the objectivies and program has met with great success and enthusiasm throughout the entire area covered by the project, schools, community, industry, civic organizations, clubs and parents.

PROJECT DESCRIPTION:

Project Title: Natural Resources Education, Demonstration Center *USOE #* 68-05463-0
Director's Name and address: Beverly H. Southern, 503 Oak St., DeKalb, 60115
Number of School Districts (LEA's) being served: 18
Service coverage in square miles: 648
Total population of school districts (LEA's) being served: 51,714
Per cent: Inner City ____ *Urban:* 56.6 *Rural:* 43.4
Total number of students in school districts (LEA's): 15,982
Per cent: Public: 90.5 *Non-Public:* 9.5
Total number of students being served by project: 15,982
Per cent: Public: 90.5 *Non-Public:* 9.5

PROJECT SYNOPSIS

CONTEXT:

For the child: (1) To acquire broad environmental understandings, (2) To develop a social conscience in respect to the environment, (3) To behave with respect and responsibility toward the environment, (4) To identify with the natural environment.

For the teacher: (1) To acquire knowledge of, respect for, and intellectual stimulation from natural resources education, (2) To develop self-confidence in the use of unfamiliar materials and environments for teaching purposes, (3) To accept the philosophy of Natural Resources Education as good, and its materials as relevant to the job of teaching.

For the community: (1) To recognize resource problems and learn how to achieve environmental quality, (2) To learn while they enjoy a facility for educational recreation, (3) To supply necessary financial support for the proposed project.

INPUT:

Project #68-05463-0 has been approved (3-1-68) for up to three years. The grant for the first year of operation is $121,000.00. A year of planning (OE #-66-2220) has been completed with a grant of $24,000.00. The project has acquired a 55 acre outdoor laboratory and will lease a relocatable classroom (3,200 sq. ft.). Staff will include six professional and two non-professional personnel.

PROCESS:

The Program Evaluation and Review Technique (PERT) system is presently being adapted to the project's needs. Activities are directed toward curriculum development. These are primarily associated with project objectives, design of the program, dissemination of information and evaluation. The operational project will implement a curriculum of Natural Resources Education developed in the planning project.

PRODUCT:

It is anticipated that at the end of the project (three years) there will be some evidence that children and teachers have acquired environmental understandings and that attitudes and values toward natural resources have undergone change.

PROJECT DESCRIPTION:

Project Title: Cooperative Outdoor Education Project *USOE* #67-03814
Director's Name and address: Craig Chase, 420 E. Main St., Marion, 62929
Number of School Districts (LEA's) being served: 5-1967 19-1968-69
Service coverage in square miles: 70
Total population of school districts (LEA's) being served: 46,117
Per cent: Inner City: *Urban:* 60 *Rural:* 40
Total number of students in school districts (LEA's): 10,777
Per cent: Public: 10,148 *Non-Public:* 629
Total number of students being served by project: 6309
Per cent: Public: 5680 *Non-Public:* 629

PROJECT SYNOPSIS

CONTEXT:

1. To provide training in Outdoor Education techniques to the in-service faculty of the Williamson County Schools as an integral part of the total educational program.
2. To provide training in the use of the school-site as a teaching resource for in-service faculty of the Williamson County Schools.
3. To provide outdoor education by qualified professional personnel for the students of Williamson County.
4. To establish a demonstration center, for the surrounding school systems, in outdoor teacher training.
5. To establish a faculty knowledge of the methods in which the local school site may be used with outdoor teaching aids, to promote educational interest of the students.
6. To supply instructional materials and equipment for use by both the pupils and the teachers participating in the program.
7. To provide pupils with the basic ecological concepts of conservation of natural resources.

INPUT:

Grant = $90,766.00
Personnel = four outdoor teachers, one secretary, Project Director
Facilities = emphasis on school site usage for outdoor teaching.
Equipment = two mobile units (vehicle + trailer) with field teaching equipment

PROCESS:

1. Summer workshop to train an outdoor curriculum specialist at each attendance center.
2. Mobile unit and team of outdoor teachers will work at the school site of teachers requesting aid.
3. When faculties have been trained in outdoor teaching techniques, the trailers and equipment will be turned over to County Supt. of Schools for scheduling.

PRODUCT:

In-service elementary faculties will be using community environmental resources to provide supplemental direct curriculum experiences for their students.

PROJECT DESCRIPTION:

Project Title: Application for the Development, Operation and Maintenance of a Demonstration Farm-Outdoor Ed. Resource Center *USOE* #OE-1201
Director's Name and address: Undetermined - 505 S. Quentin Rd., Palatine, 60067
Number of School Districts (LEA's) being served: 148
Service coverage in square miles:
Total population of school districts (LEA's) being served: 5,500,000
Per cent: Inner City: 56 *Urban:* 43 *Rural:* 1
Total number of students in school districts (LEA's): 1,307,400
Per cent: Public: 74 *Non-Public:* 26
Total number of students being served by project: 1,307,400
Per cent: Public: 74 *Non-Public:* 26

PROJECT SYNOPSIS

CONTEXT:

1. The development of an operating demonstration farm.
2. The development of a natural area for in-depth study by students.
3. The development of an outdoor curriculum to provide children from all grade levels with the benefit of outdoor education.
4. The development of an in-service educational program for teachers to improve techniques and methods of teaching.

INPUT:

1. Forest Preserve land available at $2,447.668.
2. Partial construction by cooperative agency.
3. Cooperation between public agencies.
4. Cost of operation undertaken by Forest Preserve after project completion.
5. Contract assurance of 20 year duration of project.

PROCESS:

The staff, facilities and natural resources of the project will provide an infinite number and variety of direct learning experiences for all children of a very heavily populated metropolitan area. Activities are designated to supplement all areas of the regular school curriculum of grades K-12.

PRODUCT:

The planning grant was approved by the Federal Government, however, restrictions on construction funds did not allow for operational grant to be approved.

PROJECT DESCRIPTION:

Project Title: Summer Outdoor Education *USOE #* 67-3063

Director's Name and address: Richard L. Fass, 102-27th Ave., Cedar Rapids, 52404

Number of School Districts (LEA's) being served: 1

Service coverage in square miles: 135.8

Total population of school districts (LEA's) being served: 10,000

Per cent: Inner City: 10 *Urban:* 20 *Rural:* 70

Total number of students in school districts (LEA's): 2,737

Per cent: Public: 95 *Non-Public:* 5

Total number of students being served by project: 184

Per cent: Public: 90 *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT: Major goals are:

1. To develop a better understanding of specific areas in the fields of science, art, humanities and recreation as they relate to the outdoors.
2. To develop a relaxed atmosphere in which learning would take place spontaneously.
3. To develop within each student an understanding of and appreciation for the cultural, religious and social patterns of the people living within the specific areas of study.
4. To provide students the opportunity to work with other students in an unstructured cooperative setting.
5. To provide an opportunity to strengthen the "unity" of the students in a common experience in a district where they come from several small towns, as well as rural and larger urban areas.
6. To provide students the opportunity to involve themselves in specialized individual projects and research in fields of science, art, humanities and recreation as they relate to the outdoors.
7. To involve teachers, parents and personnel from neighboring districts in total understanding of the program.

INPUT:

Time: 6 days in planning and development sessions; 36 instructional days; 2 days of summary and evaluation.

Money: $25,865 for salaries, materials, speakers and transportation.

Facilities: Outdoor environment, parks and public areas.

Materials & Equipment: Supplies and books for work in outdoor activities in science, art, recreation and humanities.

Personnel: 1 director, 7 faculty instructors, 8 student assistants, 4 part-time drivers, 1 part-time secretary.

PROCESS:

First year students have schedule of classes in a variety of outdoor settings in art, science, recreation and humanities, with emphasis on understanding the outdoors and man's role in the total environment and relating this study to conservation. Second year students put special emphasis on individual research topics and projects in any of the four areas they have special interest in.

PRODUCT:

Students involved show positive response to the total program, and to their continued progress in the normal school situation. Much carry-over to the classroom, in relation to their past summer's experiences, has been noted. More interest is shown by students, not previously involved, for the coming summer activities being planned. Expanded program plans for the second summer have been developed, with more time and experience available to the planning committee, for an even better program anticipated in the summer of 1968.

PROJECT DESCRIPTION:

Project Title: Seaman Outdoor Education Project *USOE* # 66-1949
Director's Name and address: Larry L. Bowser, R. R. #5, Topeka, 66608
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 82
Total population of school districts (LEA's) being served:
Per cent: Inner City 90 *Urban:* 10 *Rural:*
Total number of students in school districts (LEA's): 2,539
Per cent: Public: 2 *Non-Public:*
Total number of students being served by project: 2,539
Per cent: Public: Non-Public:

PROJECT SYNOPSIS

CONTEXT:

Our objectives are to: Provide opportunities and facilities for field trips, hikes, gardening, simple farming experiences, conservation activities, camping experiences, recreational skills for leisure time activities, and group living experiences; develop apprecition of natural resources, interdependence in nature, and of other people; develop confidence of elementary teachers in the outdoor method of teaching; develop adult skills in outdoor recreation and education.

INPUT:

The camp site is located on a 12,000 acre foot federal reservoir near a city of 125,000 population. The staff consists of $1\frac{1}{2}$ teachers, $\frac{1}{2}$ time director and $\frac{1}{2}$ time secretary - $\frac{1}{2}$ time aide.

PROCESS:

In-service training occurs in the fall before school begins to prepare classroom teachers for the potential activities. The primary activities are focused on science, conservation, and recreation. A post activity visit is encouraged to develop ideas for the next trip to the laboratory. The program is a series of one day experiences because residential facilities are not available. Outdoor staff members visit the participating class before they come to camp to explain procedures and to develop motivation.

PRODUCT:

Evaluation will be primarily by using behavioral objectives. Participating teachers will give anecdotal summaries. A pre-test and post-test will be developed. Different subject areas will be encouraged to develop objectives and tests. Standards set by American Camping Association for camping education will be used to test camping experiences. Students will write bibliographies of their experiences. Limited use of sociograms might also be used.

PROJECT DESCRIPTION:

Outdoor Education Project
Project Title: West Kentucky ESEA Title III Project, Region I *USOE #* 2519
Director's Name and address: Mr. James M. Major, 1000 Clark St., Paducah, 42001
Number of School Districts (LEA's) being served: 29
Service coverage in square miles: 6,556
Total population of school districts (LEA's) being served: 358,143
Per cent: Inner City: 69 *Urban:* 31 *Rural:*
Total number of students in school districts (LEA's): 78,861
Per cent: Public: 96 *Non-Public:* 4
Total number of students being served by project: 1,070
Per cent: Public: *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

1. To provide a scientific, logical approach to nature study through direct experiences in the outdoors.
2. To provide deeper appreciation of the functions and importance of history on the present through a study of local history.
3. To encourage respect and appreciation for the outdoors as a rich American heritage.
4. To become aware of the need for preserving natural resources.
5. To provide "real" educational experiences with the substance of natural science to enrich the vicarious classroom program.
6. To develop an aesthetic appreciation for nature and the outdoors.

INPUT:

1. Funds from West Kentucky ESEA Title III Project and participating local Boards of Education.
2. Facilities: Youth Activities Station, Conservation Education Area, Land Between the Lakes, Tennessee Valley Authority, Golden Pond, Kentucky.
3. Natural Resources: 52,000 acres on Barkley Lake, abundant plant, animal life in undeveloped condition. Evidence of abandoned iron industry of late 19th century.
4. Materials and Equipment: Youth Activities Station, facilities provide for feeding and housing large numbers of students involved in planned educational activities.
5. Personnel: 7 member Outdoor Education Pilot Project Committee, assisted by two TVA outdoor education specialists.

PROCESS:

1. 6 Pilot programs in 1966-67 by pilot committe of Paducah, public school system.
2. One, 2-day workshop for area administrators to familiarize them with possibilities of outdoor education.
3. Three, 2-day workshops to familiarize staff of area schools with outdoor education areas, study subject matter areas and unique characteristics of outdoor education, and planning outdoor projects for individual school districts based on instructional models.
4. Each participant in the in-service program will conduct a 2 to 5 day outdoor education program with children from their school district.

PRODUCT:

1. Improved student performance in subject matter areas of science and social studies.
2. Increased student interest and participation in vicarious experiences of the regular classroom environment. This is particularly noticeable among deprived students.

PROJECT DESCRIPTION:

Project Title: Regional Academic Marine Program *USOE* #67-03999-0
Director's Name and address: Sebastian J. Cultera, Kittery, 03904
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 36
Total population of school districts (LEA's) being served: 12,118
Per cent: Inner City 65 *Urban:* 35 *Rural:*
Total number of students in school districts (LEA's): 2,118
Per cent: Public: 100 *Non-Public:*
Total number of students being served by project: 1,881
Per cent: Public: 100 *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

1. Development of teaching units in marine sciences and participation in laboratory experiences for grades 6 - 10.
2. Exposure to an observation of marine life for grades 1 - 5.
3. Availability of staff and facilities for marine education program for the regional adult population.
4. Summer school program in marine biology for secondary and elementary students.

INPUT:

RAMP has received $31,181 for the period January 1, 1968 through December 31, 1968, which provides for a full-time Director, secretary, and part-time curriculum personnel. The program is housed in a four-room school building which presently consists of an administration area, aquaria, and lecture and resource area. This building is situated in Kittery, Maine, a coastal community and is within five miles of the open Atlantic and the estuary of the Piscataqua River and stands on the bank of a tidal channel. Equipment is largely loaned by the local school system, with the exception of two self-contained holding tanks and several specialization pieces of marine equipment.

PROCESS: RAMP proposes the following:

1. An extension to our very young of a continuing, gradually-expanded program of marine education from grades 1 - 12. This is designed as a laboratory-field-lecture-centered approach.
2. The relating of this marine education to the formal classroom work in the local schools will be stressed.
3. The availability of a trained staff to assist local schools in structuring marine applications along with traditional science curricula.
4. The continuation of a marine biology course during the summer months.
5. Marine Resource Center.
6. Adult education program in the marine sciences.
7. A model to which regional schools can refer for assistance in this subject area.

PRODUCT:

The results of RAMP will be shown on a long-term basis by community attitude changes on conservation of natural resources, changes in aesthetic outlook, career orientation of our young people as a vocational or academic pursuit, and extent of community participation in the operational program.

PROJECT DESCRIPTION:

Project Title: Outdoor Laboratory of Natural Environmental Science *USOE #* 67-3173
Director's Name and address: Robert L. Hunt, R. F. D. #2, South Windam, 04082
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 50
Total population of school districts (LEA's) being served: 5500-6000
Per cent: Inner City: *Urban:* *Rural:* total
Total number of students in school districts (LEA's): 1,250
Per cent: Public: 100 *Non-Public:*
Total number of students being served by project: Grades K-12
Per cent: Public: 100 *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

1. Assist classes in first hand experiences in natural science.
2. To provide "lands of learning" where in-service programs for teachers may be provided.
3. To develop an awareness of the importance of conserving natural resources and emphasizing concepts of conservation.
4. To grasp scientific understandings by seeing applications of natural principles and laws in their outdoor settings.
5. To read the record of past and present resources, their use, from the landscape.

INPUT:

1. Initial grant $10,500.
2. Two professional teachers of environmental science 50% each.
3. Two parttime non-professionals.
4. Three plots of contrast plant-animal types, two ponds.
5. Basic collection equipment, identification manuals.
6. In-service program for teachers.

PROCESS:

1. Inventory type survey with advice from conservation and education agencies.
2. Basic construction of ponds.
3. Planning by professionals and non-professionals.
4. Initial use by science classes of grades 7-12.
5. In-service training program for teachers of K-8.
6. Records of plant species and growth characteristics.
7. Development of a summer program for Grades 4-7.
8. Basic evaluation.

PRODUCT:

1. Inventory complete, planning with advice from agencies.
2. Ponds constructed, landscaping unfinished.
3. Planning for academic year, summer program outlined for full implementation.
4. Classes of biology, chemistry have seen use of facility.
5. In-service program underway, teachers from surrounding communities are at a maximum (full class of 40 teachers). Interest exceptionally high.
6. Records being developed.
7. Plans, enrollment will be firm April 1.
8. Partial evaluation (State, Federal Conservation Agencies at this time.)

PROJECT DESCRIPTION:

Project Title: Oceanographic Education Center *USOE* # 67-03950-0
Director's Name and address: James C. Kinney, P. O. Box 585, Falmouth, 02541
Number of School Districts (LEA's) being served: 12
Service coverage in square miles:
Total population of school districts (LEA's) being served: 74,000
Per cent: Inner City: 100 *Urban:* *Rural:*
Total number of students in school districts (LEA's): 20,535
Per cent: Public: 100 *Non-Public:*
Total number of students being served by project: 13,150
Per cent: Public: 100 *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

To train teachers and produce teaching units through a unique relationship between teachers and marine scientists at Woods Hole.

To teach the various disciplines of science, using oceanography to inter-relate them in an exemplary manner.

To develop an Oceanographic Education Center for exhibiting and disseminating teaching aids, methods, and information.

INPUT:

$95,715, two administrative persons (Director and Secretary), 40 area teachers educated in "Introduction to Oceanography", office, classrooms, outdoor laboratory experiences, beaches, estuaries and marshland, writing sessions, classroom and laboratory materials, three staff members.

PROCESS:

Teaching summer course in oceanography for teachers.

Teaching oceanographic materials in classroom and special seashore laboratory.

Developing and accumulating teaching aids, i. e., slides, filmstrips, 8 mm single concept loops, and displays.

PRODUCT:

Develop an awareness of the natural seashore environment.

Teach the general information of oceanography in classroom and laboratory.

Disseminate all kinds of information to persons of all levels of education, both technical and otherwise.

PROJECT DESCRIPTION:

3-7-704414-

Project Title: Lowell Environmental Arts & Science Center *USOE #* 3945

Director's Name and address: Charles P. Epstein, Library Building, Lowell, 01852

Number of School Districts (LEA's) being served: 3

Service coverage in square miles: 50 sq. miles approximately

Total population of school districts (LEA's) being served: 121,149

Per cent: Inner City: 71.4 *Urban:* 28.6 *Rural:*

Total number of students in school districts (LEA's): 295.44

Per cent: Public: 77.2 *Non-Public:* 22.8

Total number of students being served by project: 1,080

Per cent: Public: 66.7 *Non-Public:* 33.3

PROJECT SYNOPSIS

CONTEXT:

The main objectives of the pilot project are: to test the feasibility of broad scale use of direct environmental experiences as an educational medium; to arouse community and regional interest; to involve local teachers in analyzing and evaluating their subject areas through their use of this medium; to provide students with a variety of direct environmental experiences that will enahnce their capacities to learn; to provide a three man professional staff that will help students and teachers make the most of the environment outside the school building as a medium for learning and teaching; to provide practicum experiences for pre-service teachers at Lowell State College and other nearby colleges and universities; to train a small cadre of interested citizens that can act as assistants to the classroom teachers and the Center staff.

INPUT:

The Center has three full-time personnel (director, assistant director, teacher-naturalist) and one part-time personnel (project evaluator). The major outdoor site is the 1,000-acre Lowell-Dracut State Forest. Other sites are Drumlin Farm, Ipswich River wildlife Sanctuary, Boston Museum, Merrimack Valley and the City of Lowell (City Hall, Library, Public Works Dept., etc). Students are transported by bus and the trips vary in time from two hours to all-day. Substitute teachers are provided by the Center for the classroom teacher and the teacher observers. The money for operating the Center in its pilot year comes from a Title III grant of $57,000.

PROCESS:

During the pilot year, thirty-six classes will participate in the pilot project, three each from every grade - one through twelve. Twenty-four of the classes will be chosen from the public schools and twelve from the parochial schools. The participating teachers are chosen on a basis of initial personnel contact and interest. The Center staff then works with the teachers in examining how to best utilize the medium. Once the unit of work has been jointly designed, the staff then, whenever possible, trains field assistants recruited from teacher-training institutions in the area.

PRODUCT:

In order to provide the students with the type of learning experiences envisaged by the Center, the staff is very much interested in teacher involvement during this pilot year. Lowell teachers have had little exposure to, and lack familiarity with, direct environmental experiences as an instructional medium. This objective is met by teacher-observer evaluation teams. A team is composed of five teachers of the same grade as the pilot class. These teams provide immediate feedback on the effectiveness of the program; a large number of teachers are exposed to the environmental medium and by the same process.

PROJECT DESCRIPTION:

Project Title: Project Lighthouse *USOE* # 70-4026
Director's Name and address: Derek R. Little, Project Lighthouse, Marshfield
Number of School Districts (LEA's) being served: 9
Service coverage in square miles: 280
Total population of school districts (LEA's) being served: 80,000
Per cent: Inner City: ____ *Urban:* 100 *Rural:* ____
Total number of students in school districts (LEA's): 26,303
Per cent: Public: 98 *Non-Public:* 2
Total number of students being served by project: 26,303
Per cent: Public: 98 *Non-Public:* 2

PROJECT SYNOPSIS

CONTEXT:

To develop the unique natural and historical resources of the South Shore Area of Massachusetts as unique teaching sites. To develop unique teaching sites. To develop unique teaching materials based on these local resources in outdoor science, language arts, and special education.

INPUT:

The abundance of sandy beaches, rocky coasts, tidal pools and basins, salt water marshes, forests and woodlands, and the proximity of our great historical museums and facilities make for ideal locations in promoting outdoor education.

PROCESS:

Our plan is to develop master teachers from all of our systems in all of the areas covered by our project. We do this through teacher consultation, workshops, and in-service programs. We later utilize these people in the development of multi-media kits based on supplementing outdoor field trips to the sites.

PRODUCT:

Our anticipated result is to provide original stimulating materials for all grade levels and to improve the use of our natural resources and areas. Also to improve instruction through the development of our master teachers program.

PROJECT DESCRIPTION:

Project Title: Exploring Nature's Classroom *USOE #* 66-1291
Director's Name and address: James A. Miller, 70 Tibbets, Coldwater, 49036
Number of School Districts (LEA's) being served: 4
Service coverage in square miles:
Total population of school districts (LEA's) being served: 30,000
Per cent: Inner City: *Urban:* 50 *Rural:* 50
Total number of students in school districts (LEA's): 4,518
Per cent: Public: 90 *Non-Public:* 10
Total number of students being served by project:
Per cent: Public: 90 *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT:

Exploring Nature's Classroom is a project to improve instruction in all areas of the curriculum through the use of school sites. Students are involved in experiences at the Lincoln site as well as on their own school sites. To carry out the philosophy "Many Things Can Best Be Taught Outdoors". To develop and disseminate materials related to school site use. To help children learn by seeing and doing in the school site environment.

INPUT:

Human resources from students, staff and community provide the base of our program. Local and Federal funding have been provided. Office and storage space from the local system aid in utilizing special equipment. The director, assistant and secretary provide the staff. The site at the Lincoln School is the natural facility with cooperative agreements from City, 4-H and school system for multiple use.

PROCESS:

Students are taken outside to utilize whatever resources are available to enhance learning. A variety of facilities are available to be used as media by students and teachers with emphasis on student experiences. In-service program exposes teachers tp site use possibilities through involvement and publications. A summer program provides for more individual differences.

PRODUCT:

Although our program has been in operation for one and one-half years, we are now receiving teacher requests of sufficient frequency to indicate a desire on the part of teachers to employ site resource in lesson presentation. Students are finding satisfaction in outdoor oriented pursuits which were previously out of the background of most teachers and were therefore generally neglected.

PROJECT DESCRIPTION:

Project Title: Outdoor Education Laboratory *USOE #* 2897
Director's Name and address: David C. Thornton, 260 W. 6th St., Constantine, 49042
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 84
Total population of school districts (LEA's) being served: 6,000
Per cent: Inner City ____ *Urban:* ____ *Rural:* 100
Total number of students in school districts (LEA's): 1,466
Per cent: Public: 100 *Non-Public:* ____
Total number of students being served by project: 1,466
Per cent: Public: 100 *Non-Public:* ____

PROJECT SYNOPSIS

CONTEXT:

The primary purposes of this project are to create and operate an outdoor laboratory on our school site, and to provide in-service training for our teachers so that they may effectively utilize this area.

Children will have direct contact with nature instead of reading or talking about it. By direct observation and the use of all their senses in the examination of a plant or animal, they should come to have a much more meaningful understanding than they could ever hope to obtain within the confines of the classroom. Through this program, they should come to have, not only a better understanding of the outdoors, but also a deeper appreciation and concern for the proper management of our natural resources.

INPUT:

The money acquired through Title III - ESEA funds, plus local support, have made the program financially possible.

The recent acquisition of additional land for our school site has provided us with over forty acres of land which can be utilized for the outdoor laboratory. The construction of a small pond on the area has created an aquatic habitat where none existed before. Purchase of a small tractor and implements, hand tools, audio-visual equipment, etc. make it possible to carry out a program of development and utilization which will hopefully affect and benefit every child in our school system.

PROCESS:

The primary activity of the program will be the involvement of students in developing, utilizing and maintaining the outdoor laboratory. High school students will be directly involved in the cultivation of soil plots, management of pine plantations for Christmas tree and lumber production, bird banding, etc.

Elementary classes will have the opportunity to take frequent field trips, observing what is happening in nature rather than the memorization of names and facts or the usual collections of leaves or insects.

PRODUCT:

Hopefully, through this direct contact with nature, students will develop a better understanding of their world, a deeper respect for life, and an awareness of their responsibilities as citizens for the proper management of our natural resources. Through the realization of the needs of plants and animals and their inter-relationships, they may come to realize that natural resources have been destroyed or polluted primarily by man's activities, and only man can remedy this situation.

PROJECT DESCRIPTION:

Project Title: A Program to: "Modify Concepts Held by Low-Achieving Students" *USOE* #68-5439-0
Director's Name and address: Allen Lockman, 6349 Alpine Dr., Traverse City, 49684
Number of School Districts (LEA's) being served: Traverse City Public Schools
Service coverage in square miles: 250
Total population of school districts (LEA's) being served: Approximately 30,000
Per cent: Inner City ______ *Urban:* 75 *Rural:* 25
Total number of students in school districts (LEA's): 7,782
Per cent: Public: 6,091 *Non-Public:* 1,691
Total number of students being served by project: 70
Per cent: Public: 70 *Non-Public:* ______

PROJECT SYNOPSIS

CONTEXT:

To change the attitude of low-achieving, potential dropout students as to: rights of others; respect for public and private property; respect for authority; pride of accomplishment; need to complete high school. To develop a proper knowledge and appreciation of the out-of-doors, not found among the group to be served. To develop a realistic problem-solving approach to learning through situations provided at the project. To decrease dropout rate. To improve school attendance record as compared with previous years. To develop skills in conservation and recreation areas that can lead to employment opportunities upon graduation from high school. Provide introductory experiences in skills used in building trades.

INPUT:

1. Approximately 1300 acres of land available for use in the project.
2. A director and staff with demonstrated ability to work effectively with low-achieving students.
3. ESEA Title III funds for salaries and equipment.
4. School administration concerned with establishing a program to involve low-achieving students.

PROCESS:

Two groups of twenty boys each, are currently enrolled in the program. A unique feature of the program is that the groups of students are transported by bus to the project area for half day classes. They are enrolled in regular school classes during the other half of the day. Total participation by the students in all the work involved in the program is the basic procedure employed. In the pilot program, thus far, this has included construction of the classroom building, rebuilding the saw mill, woodlot thinning, stream improvement and many other activities in connection with establishing the program.

PRODUCT:

This is largely a subjective type of evaluation involving value judgments of the staff, Advisory Committee and school personnel who have an opportunity to observe the students over a period of two years, during which they are enrolled in the program. In addition, a Survey of Study Habits and Attitudes, Brown and Holtzman - 1967 Edition, will be used.

Direct comparisons of the dropout rate of the group of students involved, with comparable students in previous years, will be made.

PROJECT DESCRIPTION:

Project Title: Environmental Science Center *USOE* #67-03352-0
Director's Name and address: Richard J. Myshak, 4800 Glenwood Ave., Minneapolis, 55422
Number of School Districts (LEA's) being served: 19
Service coverage in square miles: 800 Square Miles
Total population of school districts (LEA's) being served: 1,500,000
Per cent: Inner City 10 *Urban:* 88 *Rural:* 2
Total number of students in school districts (LEA's): 200,000
Per cent: Public: 86 *Non-Public:* 14
Total number of students being served by project: 100,000
Per cent: Public: 86 *Non-Public:* 14

PROJECT SYNOPSIS

CONTEXT:

1. To provide significant opportunities for student independent study, research, and experimentation at all grade levels;
2. To improve science teaching through professional development programs emphasizing subject matter depth and instructional techniques. In-service efforts in the initial years will concentrate on improving the abilities of elementary school teachers to deal effectively with life science education;
3. To create a program of curriculum development and implementation to provide continuous introduction of the rapidly expanding knowledge in the life sciences;
4. To activate a program which emphasizes coordination of efforts between science scholars and educators, maximizing the utilization of community resources, individual and organizational, to focus attention and the requisite skill on bio-scientific inquiry, experimentation, and dissemination; and
5. To generate a new understanding of importance of unified study of priniciples and practices of human and natural resource conservation in the planned control and development of our natural environment.

INPUT:

Resources available to the project are: Federal funds (Title III); renovated building providing laboratory, library, classroom,photo-lab, and offices; on-site pond, two streams, prairie and forested areas; several privately owned ecological unique natural areas; and, 6 full-time professional staff.

PROCESS:

The Center provides:

1. A program of curriculum development and implementation encompassing the retraining of teachers to speed introduction of innovative programs;
2. A comprehensive in-service education program in the biological sciences for all elementary teachers and appropriate secondary teachers in all schools of the metropolitan area;
3. Independent study, research, experimentation, and observational opportunities as an integral part of the Center's programs in in-service training and curriculum development;
4. Through the Center staff, the coordinated utilization in the Center and in the elementary and secondary schools of all potential resources in the metroploitan area for the improvement of teaching and learning in the life sciences;
5. A substantial contribution to the understanding of values of natural resources of land, water and air, regarding their utilization and preservation for the continued existence of man living in a complex society; and
6. A center for 'non-educational' groups, such as scouts, the Audubon Society, bird clubs, etc., to meet, conduct programs, and become involved in scientific and esthetic activities.

PRODUCT:

The Center anticipates a greater interest in, awareness and knowledge of, and active involvement in the wise utilization and enjoyment of our natural resources. It further anticpates serving as a model for other districts and agencies.

PROJECT DESCRIPTION:

Project Title: Outdoor Natural Science Laboratory *USOE* #67-03857-0

Director's Name and address: Ronald M. Compton, 725 Kingsland Ave., University City, 63130

Number of School Districts (LEA's) being served: One

Service coverage in square miles:

Total population of school districts (LEA's) being served:

Per cent: Inner City: *Urban:* 100 *Rural:*

Total number of students in school districts (LEA's): 7,975

Per cent: Public: 79.6 *Non-Public:* 20.4

Total number of students being served by project: 4,650

Per cent: Public: 99 *Non-Public:* 1

PROJECT SYNOPSIS

CONTEXT:

The purposes for which this project was funded are: to insure that each elementary school child has concrete outdoor experiences; to supply children with those educational opportunities which are missing from their lives; to utilize all areas of the community to maximum potential; to generate in people the ability to make decisions based on factual observations; to awaken teachers to the opportunities available for learning activities outdoors; and to make children aware of their role in the community.

INPUT:

The grant of $92,000 has provided for the employment of two teacher-naturalists, a bus and many specialized pieces of equipment (e.g. cameras and optical equipment). The city has permitted the school district to use a twenty-nine acre tract of land for a wild community. There are many facilities in the metropolitan area which we can utilize.

PROCESS:

There are six basic trips which the elementary teachers are encouraged to take. Each trip is preceded by a visit to the classroom by a teacher-naturalist to prepare the children for the experiences which they will have on the trip. Travel time between the classroom and the facility is utilized to call attention to such topics as neighborhood development or historic sites. Work at the site involves discovery by the children.

PRODUCT:

Although it is still rather early to have any concrete results preliminary indications are that we are awakening teachers to the possibilities for outdoor education and that the children are developing a slightly increased community awareness.

PROJECT DESCRIPTION:

Project Title: Summer Institute in Field Ecology and Geology *USOE #* 66-44
Director's Name and address: Jay E. Anderson, 825 Pennsylvania Ave., Deer Lodge, 59722
Number of School Districts (LEA's) being served: (one)
Service coverage in square miles: 1,000
Total population of school districts (LEA's) being served: 6,000
Per cent: Inner City: *Urban:* 70 *Rural:* 30
Total number of students in school districts (LEA's): 540
Per cent Public: 100 *Non-Public:*
Total number of students being served by project: 30
Per cent: Public: 30 *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

To provide instruction in areas not normally covered in the high school curriculum.
To reinforce principles the students have been exposed to in high school courses.
To enrich and expand the science interest of high school students.
To provide students with the opportunity to discover and develop their own scientific creativity.

INPUT:

$9,500 Grant, Title III ESEA
2 weeks field preparation time with 3 instructors.
4 week program for 30 students, 3 instructors.
High school science facilities available. Most instruction is done in the field, including one week camped out at a high mountain lake.
Visiting scientists from neighboring colleges are utilized in addition to local resource people including the Soil Conservation Service, US Forest Service, and County Extension Service.

PROCESS:

30 students are divided into three teams, one of which is advanced consisting of repeat students, and the other two basic. Studies of ecology and geology of the area are made, starting at low elevations and working in sequence from grasslands to alpine tundra. A problem solving approach is followed as much as possible. The final week is spent camping out at a sub-alpine lake from which studies of the sub-alpine and alpine areas are made. Students do not receive credit nor are they graded. No tests are used.

PRODUCT:

Evaluation is made primarily through a final report written by each participant and each instructor. Eleven of eleven students who have participated and graduated from high school are now in college, 6 of which are in fields directly related to the program. 10 of 20 students who participated the first year applied to participate again in the advanced group. The results are in accord with the objectives. A report of this project will appear in the April, 68 issue of The Science Teacher.

PROJECT DESCRIPTION:

Project Title: Squam Lakes Science Center *USOE* #6703556-0
Director's Name and address: Kevin J. Barlow, P.O. Box #4, Holderness, 03245
Number of School Districts (LEA's) being served: 124
Service coverage in square miles: 7,850
Total population of school districts (LEA's) being served:
Per cent: Inner City ___ *Urban:* ___ *Rural:*
Total number of students in school districts (LEA's): 92,000
Per cent: Public: 82 *Non-Public:* 18
Total number of students being served by project:
Per cent: Public: ___ *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

To plan for an exemplary supplementary educational service to be used in connection with the Squam Lakes Science Center.

How the schools' needs may be correlated to the educational offerings of the Science Center.

INPUT:

Representatives of the educational, business, scientific, conservation and cultural agencies of the area.

A full time Educational Planning Director and secretary.

PROCESS:

Questionnaires, interviews, discussions and group meetings used to determine the science needs of the schools.

PRODUCT:

Recommendations will be made to develop a place where pupils can go to pursue and be stimulated in their scientific interest with adequate facilities and under good leadership.

A place where teachers can acquire new techniques of teaching and modern course content.

PROJECT DESCRIPTION:

1-6-66-

Project Title: Nature Study Area USOE #1106-2147

Director's Name and address: Emile V. Rocheleau, Jr., Monadnock High School, Swanzey Ctr., 03431

Number of School Districts (LEA's) being served: 10

Service coverage in square miles: 150

Total population of school districts (LEA's) being served: 25,000

Per cent: Inner City ____ Urban: 10 Rural: 90

Total number of students in school districts (LEA's): 12,000

Per cent: Public: 95 Non-Public: 5

Total number of students being served by project: 5,000

Per cent: Public: 95 Non-Public: 5

PROJECT SYNOPSIS

CONTEXT:

(Objectives)

To provide a variety of scientific experiences and constructive activities which will develop with the student an understanding of the wise use of nature and a knowledge of native wildlife.
To develop an accessible area for the study of nature.
To provide opportunities for local students and residents to actively pursue the study of nature.
To concentrate in one area an assemblage of flora and fauna representative of central New England.
To provide greater opportunities for the development of artistic abilities of the students.
To prepare suitable teaching materials for use in the classroom.

INPUT:

(Resources)

A 102 acre Nature Area located on the school grounds of Monadnock Regional High School in Swanzey Center, New Hampshire, is the area which is the focal point of the project. Labeled as "one of the best school areas of this type in this part of New England," by the Soil Conservation Service of the USDA, the accesibility of these assets demands more than the minor use possible within a conventional school program.

PROCESS:

(Program)

A six-week summer nature study program in addition to three ten-week after-school programs during the fall, winter and spring seasons provide for the year round study of natural activities which exist despite short academic years. In addition, the opportunity for Saturday and evening programs is available to satisfy our growing need to understand our natural surrounding.

PRODUCT:

(Result)

We anticipate a greater awareness and appreciation for the conservation of nature's beauty--a topic of rising concern and increasing importance in modern America. We hope to measure the results of the numerous opportunities afforded our communities by the availability and use of a well developed, functional Nature Study Center.

PROJECT DESCRIPTION:

1-6-
Project Title: Union County Outdoor Education Center *USOE* #001161-16
Director's Name and address: Arthur J. Ryan, 2 Glenside Pk., Berkely Hgts., 07922
Number of School Districts (LEA's) being served: 20
Service coverage in square miles: 120
Total population of school districts (LEA's) being served: 600,000
Per cent: Inner City 50 *Urban:* 45 *Rural:* 5
Total number of students in school districts (LEA's): 125,000
Per cent: Public: 75 *Non-Public:* 25
Total number of students being served by project: 7-8000
Per cent: Public: 75 *Non-Public:* 25

PROJECT SYNOPSIS

CONTEXT:

The broad objectives of this project are:

1. Appreciation and understanding of the need for conservation of our natural resources.
2. Acquisition and development of outdoor leisure skills which stimulate a spirit of confidence to explore, enjoy and appreciate our natural environment.
3. To develop an appreciation for the beauty of the natural world; and the development of an inquiring, observing attitude toward the fruitful earth upon which man depends.
4. Provide an opportunity for our children to live, work and share together to develop the social skills necessary in our society.
5. Provide a natural learning situation for the practical application of knowledge gained in the classroom.

INPUT:

Facilities: 2000 acre wooded reservation of ponds, streams, forests, fields, plus four buildings.
Staff: Director, Assistant Director, Office staff ($1\frac{1}{2}$ people), Maintenance ($\frac{1}{2}$ time) and 10 Resource leaders (temporary and full-time).
Equipment: General office, Maintenance, plus specialized equipment for activities.

PROCESS:

The program at the day center provides one and two day sessions for fifth and sixth grade students from all public and non-profit private schools in Union County. A limited resident program is operational.

There are 12 activities planned to meet the objectives of the program and the needs of the participating school districts.

PRODUCT:

In the first full operational year at the Day Center, approximately 65% of the elegible public and non-profit classes participated in the program. Advance registration for the third operational year indicate that nearly 90% of the classes will participate.

The Resident Center will have its first operational year in 1968-69 and as of this date one full school district is scheduled to participate, but others have made tentative plans to do so.

The teacher and pupil evaluations, and the mounting enthusiasm for the program points toward the need for expanded facilities and additional teacher personnel. Plans are actually being formalized to expand the program to meet the anticipated growth.

PROJECT DESCRIPTION:

66-
Project Title: Stepping Stone Environmental Education Center *USOE* # 01619-2
Director's Name and address: Donald S. Calderon, R.D. 1, Box 369A, Brnachville,
Number of School Districts (LEA's) being served: 18
Service coverage in square miles: 250
Total population of school districts (LEA's) being served: 250,000
Per cent: Inner City 40 *Urban:* 40 *Rural:* 20
Total number of students in school districts (LEA's): 40,000
Per cent: Public: 90 *Non-Public:* 10
Total number of students being served by project: 11,000
Per cent: Public: 90 *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT:

The major objectives of this project are:

1. To improve the quality of the educational process through Environmental Education.
2. To develop in students and teachers a greater understanding and appreciation of the natural environment.
3. To increate responsibility and improve attitudes toward conservation of natural resources.
4. To make others aware of the values of Environmental Education.
5. To learn more about the educational process and the application of the environmental educational methods to it.
6. To improve citizenship training through teamwork experiences.
7. To improve life-long leisure time use through outdoor activities.

INPUT:

This is the final fifteen month period of Federal funding through Title III. The project is a twelve month operation using both a leased State Forest facility and local day use areas (Satellite Centers) near participating schools. The natural resources of the camp facilities as well as the environmental resources of the communities are utilized by a project staff of six, in cooperation with the classroom teacher. Equipment used in the project is applicable to field activities in all subject areas of the school curriculum.

PROCESS:

The five program activities (all geared to the broad curriculum of the schools being served) are:

1. Resident Outdoor Education-classroom groups with their teachers.
2. Rolling Nature Center - a mobile laboratory that visits school sites with special programs.
3. Satellite Centers-day use centers for field trips and outdoor study of curriculum subjects in school and Center vicinity.
4. Resident Summer Enrichment-grades 4-11 emphasizing environmental understanding and appreciation.
5. In-service Teacher Training programs for all areas of the project.

PRODUCT:

The anticipated results of this project are:

1. Increased teacher use of the natural and community environments to enrich school curriculum.
2. Increased student use of the natural community environments for enrichment of their required and extra-curricular activities.
3. Student, teacher and community development of a conservation ethic.
4. The incorporation of Environmental Education as in integral part of the total educational process.

PROJECT DESCRIPTION:

Project Title: The Conservation & Environmental Science Center for Southern New Jersey *USOE* #67-5679
Director's Name and address: Dr. V. Eugene Vivian, Box 2230, R.D. #2, Browns Mills, 08015
Number of School Districts (LEA's) being served: 49
Service coverage in square miles: 3680
Total population of school districts (LEA's) being served: 1,100,000
Per cent: Inner City 20 *Urban:* 65 *Rural:* 15
Total number of students in school districts (LEA's): 101,000
Per cent: Public: 65 *Non-Public:* 35
Total number of students being served by project: 101,000
Per cent: Public: 65 *Non-Public:* 35

PROJECT SYNOPSIS

CONTEXT:

New Jersey, with the highest population density in the United States has a most critical need for the development of environmental education in its broadest sense. Environmental education as a pervasive concern in every school curriculum is conceived as an objective of highest priority.

Southern New Jersey has not had a facility where school youngsters could engage in a resident (live-in) learning experience for the purpose of studying various environments first hand. Similarly, environmental education has not been found to be a significant aspect of the schools' curricula in Southern New Jersey.

INPUT:

Glassboro State College in New Jersey has released a faculty member to seek funds to:

1. Operate an extensive teacher education program for the inclusion of environmental education in the curricula of cooperating local education agencies.
2. Provide ememplary children's programs in environmental education.

The U. S. Office of Education has provided funds in a planning grant of $39,800 for fifteen months, and a first year's operational grant of $236,000.

Each cooperating LEA has provided released time for 1 - 6 staff members for training and program operation.

PROCESS:

1. Fifteen months of planning and demonstrations with classes from 6 LEA's.
2. Operation of a leased resident center for 30 weeks in each school year with 55-65 children each week from grades 5 - 10 as designated by cooperating LEA's.
3. Frequent teacher training sessions from 1 - 5 days in duration.
4. Curriculum planning and demonstrations on or near school building sites of each of the cooperating LEA's.
5. Architectural consulting, brochure production for fund raising for capital construction from non-ESEA federal and private sources in business and industry.
6. Extensive assistance in planning, leasing of public lands for environmental education study and building sites, technical aid and teacher training, was sought and is being given by Commissioner Robert A. Roe and the entire Department of Conservation and Economic Development.

PRODUCT:

1. Development of viable environmental education programs in residence and on-school sites for each cooperating LEA and attraction of other LEA's.
2. Development of a permanent center for Environmental Education.
3. Continuous teacher education in environmental education at pre-service, in-service and graduate levels.
4. Demonstration of significant educational gains in the environmental education programs.

PROJECT DESCRIPTION:

Project Title: Science Interpretive Program-Middletown Twp. Schools *USOE* #000532
Director's Name and address: Richard C. Cole, Box 57, Highland, 07732
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 39 sq. miles
Total population of school districts (LEA's) being served: 50,000
Per cent: Inner City ___ *Urban:* 100 *Rural:* ___
Total number of students in school districts (LEA's): 16,840
Per cent: Public: 70 *Non-Public:* 30
Total number of students being served by project: 3500
Per cent: Public: 56 *Non-Public:* 44

PROJECT SYNOPSIS

CONTEXT:

The program objective is to enrich and contribute to learning through the dimension of outdoor education. It employs maximum use of the environment, emphasizes individual learning, experiences and discovery theory. Teacher in-service is accomplished through program participation, orientation and seminars. Environmental instructional and demonstration center to be created and refined. Community involvement by coordinated adult and summer programs and lectures.

INPUT:

A cooperative effort of New Jersey Conservation Department and Middletown Schools in a previous marine program established a framework for continued relationship under federal funds. The program is located at Sandy Hook State Park. On this ocean barrier beach, an isolated, rustic, former coast guard station serves as the program center. Rich and abundant natural areas of ocean and bay shoreline, marsh and upland areas abound. A director, assistant director, two teachers-instructors, a secretary and two laboratory technicians operate the program. The directors share in the instruction. 3500 local system students and 6000 beyond the local area are being serviced this year.

PROCESS:

Pilot studies in elementary geology, land biology and marine ecology have been accomplished and refined. Three and four, half day programs in these areas are given to students bussed daily from their classrooms. One day customized experience programs are given to other elementary, secondary and college groups. Three summer school programs, two adult winter programs, assembly programs, lectures and consultive work are offered. A backdrop of Conservation is found in all programs.

PRODUCT:

Objectives being realized are: Internal local system growth in science. Classroom practice of discovery learning being accomplished. Greater subject correlation in classroom is being realized. Teacher-in-service is resolving many previous science insecurities with stronger classroom approach being observed. Increased student motivation and learning is being realized. Increased public/parochial school interaction is occuring with mutual benefit to all. Community awareness and interest is apparent. The environmental, demonstration center concept is affirmed as practical, meaningful and valuable. With increased involvement beyond local district evidence is accumulating to support broader area involvement.

PROJECT DESCRIPTION:

Project Title: Learning Camp *USOE* #67-1909-1
Director's Name and address: Mrs. Lois B. Zink, Curriculum Coordinator,
Number of School Districts (LEA's) being served: Kearny Public Schools.
Service coverage in square miles:
Total population of school districts (LEA's) being served:
Per cent: Inner City ____ *Urban:* ____ *Rural:*
Total number of students in school districts (LEA's):
Per cent: Public: ____ *Non-Public:*
Total number of students being served by project:
Per cent: Public: ____ *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

1. To create a learning situation in a relaxed atmosphere.
2. To establish a better rapport between students and their teachers.
3. To observe the behavior of the students away from the classroom.
4. To instill an appreciation of the out-of-doors.

INPUT:

A cumulative award of $45,634.00 over a two-year period. A physical environment of more than 200 acres of land plus the attached state park, (Stokes State Forest). The natural resources of this site were completely perfect for the carrying out of the chosen objectives. Director and Assistant were allowed to take all the time necessary to make plans, view the site, make physical arrangements as to sleeping and eating facilities. The Director was allowed to use all necessary personnel as counselors, resource people, etc., and money was provided to substitute for same. The grant provided all necessary equipment (paper, paste, recreational equipment etc.) to carry out the goals of the Learning Camp - a learning situation on the scene.

PROCESS:

The children spent three days and two nights at Camp. They took part in a regular camp-class program consisting of lessons in Nature, Dramatics, Knot-tying, Art, Supervised Games, Music - plus the extra fun that a camp situation can provide - Scavenger Hunts, Hay Rides, Wool-Gathering, Bus Rides to points of interest in the vicinity, Ducking for apples, Wading in the lake, Finding salamanders, Snakes, Turtles, Star Study, Feeding live animals. They learned to make their beds, wait on tables, live with many other people, sharing and getting to know and enjoy adults on a new level.

PRODUCT:

Objectives were satisfactorily met. Teachers and children alike were enthusiastic about the program. All wished they could repeat the experience.
Director could not accommodate all the teachers who wished to participate the second year.
Teachers agreed they knew their children better and found out things about them that helped them to understand them better. All agreed that discipline in the classroom became much easier because they had lived as a "family". The children were completely enamoured of the College students.
Children were able to see in the actual trees, bugs, rainbows, animals, leaves, lickens, mosses, wood fires etc., etc., the things they had only read about or heard of.

PROJECT DESCRIPTION:

Project Title: The New Jersey State Council for Environmental Education *USOE* # 67-4049
Director's Name and address: Dr. Edward J. Ambry, 355 Rte. 46, Mountain Lakes, 07046
Number of School Districts (LEA's) being served: state wide planning
Service coverage in square miles:
Total population of school districts (LEA's) being served: N/A
Per cent: Inner City ___ *Urban:* ___ *Rural:* ___
Total number of students in school districts (LEA's): N/A
Per cent: Public: ___ *Non-Public:* ___
Total number of students being served by project: N/A
Per cent: Public: ___ *Non-Public:* ___

PROJECT SYNOPSIS

CONTEXT:

The major tasks delegated to the council are as follows: A. Assessment: Design and direct an assessment of Title III Outdoor Education projects presently in operation in New Jersey. B. Inventory: all of the environmental education programs currently in opertation, and sites available for environmental education. C. Initial Thrust: Determine how inner city children and youth may be more adequately served by the programs currently in operation, and what new centers and programs need to be identified and established. D. Master Plan for Environmental Education: Production of a master plan for New Jersey with respect to location and facilities of new centers needed, and a program for implementing environmental education in all interested school districts (LEA's).

INPUT:

Resources include the staff (2), made up of a director and an associate director. A board of directors consisting of representatives of the State Depart. of Education, Dept. of Conservation, Dept. of Community Affairs, Dept. of Agriculture, State School of Conservation, Dept. of Higher Education, a Superintendent of Schools, Title III Project Directors, N.J. Outdoor Education Association, State Colleges, Newark Public Schools, Private and Parochial Schools, the N.J. Section of ACA, and the U.S. Office of Education. The staff is housed in a Center comprised of two offices. The Council and the board of directors will maintain contact with all sources of information and resource agencies by conference and mailings.

PROCESS:

(A) A major evaluation instrument and program for determing the productivity of Title III projects will be developed through meeting with Title II project directors in N.J., and a work conference with participants representing national Title III projects.
(B) - (1) Search and identify those land areas and facilities available and determine their productivity as educating environments, (2) identify what new resources can be developed, (3) determine the applicability of other federal legislation for environmental education in New Jersey.
(C) Develop an operational application for a program of environmental education for elementary and secondary youth in the urban centers, with emphasis on racial inter-group relationships, and equal educational opportunity.

PRODUCT:

The planning grant is expected to yield reports as outlined in the goals in context, i.e. (a) A list of available sites and facilities for environmental education in New Jersey. (b) An evaluation instrument for all Title III programs in environmental education anywhere in the United States. (c) An operational proposal for inner city youth, (d) A master plan for environmental education in New Jersey.

PROJECT DESCRIPTION:

#OEG-3-7
Project Title: A Classroom of Today's World USOE #703365-1482
Director's Name and address: Evelyn Hunt Ogden, Throckmorton Lane, Old Bridge
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 45
Total population of school districts (LEA's) being served: 40,000
Per cent: Inner City ____ Urban: 90 Rural: 10
Total number of students in school districts (LEA's): 12,489
Per cent: Public: 80 Non-Public: 20
Total number of students being served by project: 12,252
Per cent: Public: 80 Non-Public: 20

PROJECT SYNOPSIS

CONTEXT:

Learning: Learning is the result of a process, occuring within various environments. The dynamic process involving student, teacher, and subject matter is education. Process implies inter-action--the inter-action between student and teacher, between student and subject matter, as well as the inter-action between the student and the learning environment.

Objectives: To provide activity centered environmental learning experiences, which provides direct interrelated contact with three environment--aesthetic, physical and social. To provide opportunities for teachers to learn to use direct environmental experiences as a basis for learning. To demonstrate child centered teaching methods.

INPUT:

7 environmental specialists and a project director implement the specific programs of the project.

Specific Programs

Physical Environment

K-3 Nature study program
4th Week day experience at Outdoor Center
5th Traveling study Center-use
Many environments
Environmental Study
6,7,8 Space Science
Summer-Environmental Study of N.J.

Arts Environment

Attempts to create an environment within the school conducive to the arts.
K-3 Traveling Arts Center spends two weeks at each school. Program-art, music dance, dramatics.
4-12 Saturday Arts Workshop (1,000 children)
Summer Workshop - (2000 Children)

Social Environment

Programs individually planned with teacher based on school curriculum.

In-service for teachers -- 24 teachers participate in concentrated 4 week program.

PROCESS:

Classroom teachers request special programs for their classes. Programs are scheduled for particular schools based on consent of the teachers. All programs are individually planned with teachers and include pre-program preparation, program, and follow-up.

PRODUCT:

Project is evaluated in terms of:

1. Classroom teacher acceptance of programs and self-initiated activity-centered environmental class projects.
2. Childrens' continued interest in learning through these programs and increased knowledge of their environment.
3. Impact of the project on education in the district.

PROJECT DESCRIPTION:

3-7

Project Title: Trenton Action Bound's School Within a School USOE #704322-149
Director's Name and address: J. Robert Hanson, 143 E. State St., Trenton
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: City of Trenton, N.J.
Total population of school districts (LEA's) being served: Senior High School (3,200)
Per cent: Inner City 100 *Urban:* *Rural:*
Total number of students in school districts (LEA's):
Per cent: Public: *Non-Public:* —
Total number of students being served by project: 50
Per cent: Public: 100 *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

Project goals: the integration of "motivational devices" in the classroom combined with an aggressive, student-oriented, problem-centered, environmental education; integrated scheduling and planning of outdoor and indoor academic and motivational work; identifying additional "indoor" motivational devices for use with under-achieving but gifted inner city male youth; perfecting the concept of a teaching team in a public high school; determining effective responses to disciplinary problems, and creating (with student participation) a relevent Social Studies and Science curriculum.

Student Goals: the improvement of self-understanding and self-image; increased performance academically; developing mature interest; and competing successfully on achievement tests on the national norms.

INPUT:

Resources include the staff (8 adult males and one adult female) to conduct classes in Social Studies, Science and English in the Public High School on a modularly scheduled basis; combined with a bi-weekly outdoor Outward Bound-type motivational training, including field work in Science and History; adequate equipment and facilities and funds; non-salaried staff assisting in psychological and career placement services.

PROCESS:

The primary activity is to provide on both a self-understanding (motivational) and academic front a highly relevant learning situation for 50 underachieving but gifted inner city male youth. Two weekends a month are devoted to adapted Outward Bound training of a highly demanding physical/psychical nature..along with academic emphasis in ecology, the camping "arts", and local history. The work in the indoor classroom centers around an "urban studies" theme and employs those ignition devices required to animate youngsters with long standing hostilities and unresponsiveness to traditional educational practices. In-school and outdoor activities are carefully integrated and school staff are involved in both aspects of the overall program.

PRODUCT:

We are conducting evaluations on both "behavioral" and CIPP levels. Research prepared by Princeton University on the Project last year indicates some success in attitudinal change with respect to peers, adults and teachers, self-image and post-High School plans. Results of the program so far this year show high daily school attendance figures, a drop-out rate of less than 2%, and increases academic skills on all levels. Testing devices running concurrently with the project include student files on all aspects of weekend and in-class work, psychological data, reports of parent and counsellor conferences, etc. Staff meet daily to work on the perfection of curriculum, planning of field activities, and personnel services. Princeton University is conducting a second year follow-up study on changes in attitude and behavior.

PROJECT DESCRIPTION:

Project Title: Outdoor & Conservation Education Project *USOE* #66-2624
Director's Name and address: Charles Lewis, 345 Lakeville Rd., Arrondale Blvd., Great Neck
Number of School Districts (LEA's) being served: 10
Service coverage in square miles: 82 square miles
Total population of school districts (LEA's) being served: 59,974 (school pop.)
Per cent: Inner City sub *Urban:* 100 *Rural:*
Total number of students in school districts (LEA's):
Per cent: Public: 77 *Non-Public:* 23
Total number of students being served by project:
Per cent: Public: 46,953 *Non-Public:* 13,021

PROJECT SYNOPSIS

CONTEXT:

Creates appreciation and understanding of nature, its workings, and its relationship to man - for all.

Developing a positive attitude, through learning, to conservation and the proper use of natural resources - particularly for students.

Utilization of the out-of-doors for field laboratory projects to stimulate and reinforce appropriate curriculum areas - for teachers and students.

INPUT:

Maximum use is being made of local staff, consultants and specialists, university faculty, and local citizens who have special skills and interests in outdoor education and conservation education. This includes museums, parks, farms, private estates, and other such facilities.

PROCESS:

The project has three main features:

1. The in-service training of teachers through workshops,
2. supplementary local and indepth outdoor education field trips including resident school camping, and
3. the provision of specialists and consultants for special projects such as planning, nature trails and outdoor laboratories.

PRODUCT:

Actual and anticipated results include greater use of the natural environment and human and natural resources for curriculum enrichment, the fostering of appreciation and positive attitudes on the part of both teachers and pupils.

PROJECT DESCRIPTION:

Project Title: High Rock Nature Conservation Center *USOE #* 66-609
Director's Name and address: George O. Pratt Jr., Nevada Ave., Staten Island, 10306
Number of School Districts (LEA's) being served: 30
Service coverage in square miles: 109
Total population of school districts (LEA's) being served: 7,150,000
Per cent: Inner City 78 *Urban:* 22 *Rural:*
Total number of students in school districts (LEA's): 1,544,551
Per cent: Public: 72 *Non-Public:* 28
Total number of students being served by project: 41,464
Per cent: Public: 77 *Non-Public:* 23

PROJECT SYNOPSIS

CONTEXT: Goals:

To provide a program which will create an awareness of the importance of our natural environment.

To provide an understanding of the importance of our natural resources and the need to manage them effectively.

To develop an awareness of the aesthetic and spiritual value to be derived from our natural environment.

INPUT:

Personnel:	Director	Instructor Guides (13)
	Ass't. Director	Office (5)
	Instructors (5)	Maintenance (2)

Resources:
Physical Facilities: Two indoor laboratories
Headquarters building, a Visitors' Center, Pollen Laboratory
Natural Resources: 70 acres of natural areas with numbered trails
Equipment: Office equipment, microscopes, projectors, natural history collections
Funds: $145,706.00
Time: Year round porgram, 5 days per week.

PROCESS:

Program: K-12 Program
Adult Education
Teacher Education
Programs for general public

K-12 Program (3 part program - single experience at High Rock). Preparatory - provides brief introduction with survey of topic; High Rock Experience - Ecology oriented, discovery lesson; Follow-up - projects related to High Rock Experience to be done at school site.

PRODUCT:

The formal evaluation will be conducted by the New York City Board of Education, prior to the termination of the Project.

PROJECT DESCRIPTION:

OEG 4-7-
Project Title: Outdoor Education Center *USOE* #003139-1948
Director's Name and address: John B. Cox, P.O. Box 1927, Albuquerque
Number of School Districts (LEA's) being served: 2
Service coverage in square miles: 50
Total population of school districts (LEA's) being served: 315,000
Per cent: Inner City 85 *Urban:* 10 *Rural:* 5
Total number of students in school districts (LEA's): 83,869
Per cent: Public: 76,234 *Non-Public:* 7,635
Total number of students being served by project:
Per cent: Public: 87.5 *Non-Public:* 12.5

PROJECT SYNOPSIS

CONTEXT:

Pilot Program:

1. To introduce outdoor learning to as many students and teachers as possible.
2. To provide outdoor learning activities that will reinforce concepts taught in the classroom.
3. To provide learning activities that cannot be structured in the classroom.
4. To test the initial reactions of students and teachers on their first outdoor learning experiences.

From the results of the above findings, new directions and goals will be developed. The proposed future goals are:

1. Improve the teaching of the life and earth sciences and conservation.
2. Positive development of self concepts.
3. Develop activities which associate and connect learning and living.
4. Expand horizons of teachers in the use of outdoor teaching methods and materials.
5. Provide an exemplary program so that other New Mexico Schools can develop such programs.

INPUT:

Budget - 1966-67 ($46,529); 1967-68 ($47,888); 1968-69 ($51,000). Natural Resources - 130 acre site on mountain, canyon, meadow and forest terrain at elevations of 6,600 to 7,200 feet. Facilities - 2 classrooms, indoor toilets, 120 GPM well, caretaker cottage, 2½ miles of trail, 3/4 mile access road, office and library space, gas, electricity and telephone. Staff - one director and two teacher-specialist. Days of Operation - 233. Equipment - weather station, library books, lab materials for science, social studies and mathematics and extensive slide collection. Location - 22 miles from the center of the city.

PROCESS:

Introductory Day Program - consists of one-day field trips to the outdoor center for study in geology, biology (ecology, zoology, and botany), conservation and mathematics. The field trip provides a general introduction to outdoor learning situation to teachers and students. Prior to the trip, a one hour slide orientation program is given to each class. Total Participation for 1967-68 will be 7,700 students and 241 teachers at the 5th and 6th grade level. The staff conducts 8 week work shops for teachers, Coordinate field trips for all levels, 1 to 12. Future Program - resident program for 6th grade, 4 classrooms per session, 7,000 plus projected participation. Also, coordinate and direct outdoor activities on the school ground, city parks and other lucrative areas located near the schools.

PRODUCT:

1. Teacher evaluation of present program - 90% of returns were above average, 10% average, and 0% below average.
2. Student reaction - 99.9% highly favorable.
3. Follow-up activities - 100%
4. Teacher requests for return trips - 100%
5. Requests for additional outdoor activities - 100%
6. Demand for the program is greater than the Input and Process can presently provide.
7. Knowledge retention tests - favorable.

*North Carolina

PROJECT DESCRIPTION:

OEG-3-7-704274

Project Title: Development of A Marine Science Center *USOE* # 5057

Director's Name and address: William Harris Hon, Beaufort, 28516

Number of School Districts (LEA's) being served: 1

Service coverage in square miles: 532

Total population of school districts (LEA's) being served: 30,000

Per cent: Inner City ____ *Urban:* 10,000 *Rural:* 20,000

Total number of students in school districts (LEA's): 7,200

Per cent: Public: 7,000 *Non-Public:* 200

Total number of students being served by project: 4,100

Per cent: Public: 4,000 *Non-Public:* 100

PROJECT SYNOPSIS

CONTEXT:

Creation of a center for coordination of matters related to marine science: reference library and files, film library, staff space, equipment maintenance and training area. Development of curriculum units in marine science, ecologically oriented, for grades three through ten; the introduction of a field trip facet to science instruction in all of these grades.

Addition of new courses beyond the tenth grade; career guidance and encouragement of individual student research for potential biologists.

Widespread distribution of curriculum materials after adaptation to public use format.

Establishment of a regional marine science education framework, including periodic conferences.

Summer Science School for all but primary students.

INPUT:

Staff of four M.S. biologists (five in future) and secretary, with additional summer help; two large rooms for all center activities, with much extra space for summer work; mobile laboratory and boat for field work; some collecting gear, but no large specialized equipment; grant of $86,000 from ESEA Title III, county provides space; four local laboratories contribute considerable help, especially in research assistance and lectures to high school students.

PROCESS:

With emphasis on coastal ecology, including economic and cultural ties of this area to the sea, the project hits a big gap in local school system: field experience-the discovery method of learning. Much of planning grant was consumed in designing a large center which has not been built; first operational year largely curriculum development at elementary level, teaching new courses at secondary level; next year will bring field activities to elementary level and see many publications, the major project objective.

PRODUCT:

Publications available in preliminary form: 8th grade unit (on coastal processes); 11th or 12th grade course in marine ecology in book form; 11th or 12th grade course in coastal resources in outline form; 3rd grade unit in pamphlet form; in-service training for elementary and for secondary science teachers well received; to early to evaluate regional symposium or Summer Science School.

*Note: all figures listed below are for Carteret County only; services, however, are available to other counties, especially nearby coastal areas.

PROJECT DESCRIPTION:

Project Title: Marine Information Program USOE # OEG 3-7-704733-4852
Director's Name and address: L. W. Longaker, P.O. Box 325, Manteo, 27954
Number of School Districts (LEA's) being served: Eleven
Service coverage in square miles:
Total population of school districts (LEA's) being served: 162,000
Per cent: Inner City ______ Urban: 29 Rural: 71
Total number of students in school districts (LEA's): 9,583
Per cent: Public: 100 Non-Public:
Total number of students being served by project: 4,793
Per cent: Public: 100 Non-Public:

PROJECT SYNOPSIS

CONTEXT:

Our basic objective is instruction in oceanography. We hope that by meeting this general objective we well fulfill the following more specific objectives.

1. To motivate students toward scientific commercial fishing
2. To motivate students toward college work in marine science
3. To motivate students toward technical school programs in marine science
4. To make students and adults aware of their natural resources and programs in their management.

INPUT:

We are requesting $72,539.09 for the initial year of our operational program. This money will be used to hire the director, clerk, and teachers in: scuba diving, marine biology and navigation and seamanship. It will also go to buy collecting apparatus and boats for field trips, equipment for the marine biology laboratory and books for the courses and library. In addition we have available the facilities of the local high school and our abundant marine resources: ocean, sounds, rivers, marshes, etc.

PROCESS:

We plan to set up the following programs under our project:

1. A summer program in marine science for high school students
2. Two year long high school courses, one in marine biology and one in navigation and seamanship
3. A marine library and information center
4. A program to train teachers to teach oceanography
5. A program to work marine science sections into grades three - nine
6. A program to film 1½ hours of oceanographic specials to be disseminated outside Dare County.

PRODUCT:

We hope that our results will be in accord with our objectives.

PROJECT DESCRIPTION:

Project Title: Diversified Outdoor Education *USOE #* 67-3701
Director's Name and address: Mrs. Dorothy S. Wilson, Rockingham Co. Schools, Wentworth
Number of School Districts (LEA's) being served: 4
Service coverage in square miles: 572
Total population of school districts (LEA's) being served: 20,000
Per cent: Inner City ______ *Urban:* 41 *Rural:* 59
Total number of students in school districts (LEA's): ______
Per cent: Public: 100 ** Non-Public:* ______
Total number of students being served by project: 20,000
Per cent: Public: 100 ** Non-Public:* ______
* We do not have non-public schools in Rockingham County, N.C.

PROJECT SYNOPSIS

CONTEXT:

"Diversified Outdoor Education" - A three part program as follows:

1. A residential reading camp for children from fifth, sixth, and seventh grades.
2. A residential special education camp for the educable and trainable mentally retarded.
3. A nature study program for all public school children.

Prime objectives:

1. Reading camp - to raise the reading achievement levels of children of good potential who are relatively poor readers.
2. Special Education Camp - to develop social competences and to provide recreation.
3. Nature Study - to teach conservation and to develop an appreciation for the world of nature.

INPUT:

Personnel includes a part-time director or administrator who coordinates this program with other programs, a full-time coordinator whose major responsibility is program development, a secretary, two camp directors, a nurse, instructors, counselors, and resource persons. The camp is situated on 79 acres of county owned land located near the center of Rockingham County. Title III, ESEA provides major operating funds. Additional materials and equipment are provided through the school system and interested clubs or agencies.

PROCESS:

In the reading camp, reading is taught through individual and small group instruction. Interest in nature and camping is used to motivate the participants. The special education camp stresses a well-rounded camping program which includes personal guidance, social skills, and prevocational skills. The nature studies program utilizes fieldtrips, use of nature trails, day camping, residential camping, and the nature museum which is located on the camp property.

PRODUCT:

According to preliminary evaluation, the reading program and the special education program has been successful to the extent that the average progress of children involved in reading was one year during the first encampment and fifty-six per cent of the mentally retarded children were taught to swim using the crawl stroke. All the children involved have learned new skills and the greater majority are most enthusiastic. Parents are most complimentary. It was not the purpose of this project to conduct and experiment in integration, but developing better understanding between races has been a major success factor.

PROJECT DESCRIPTION:

Project Title: MOHICAN SCHOOL IN THE OUT-OF-DOORS *USOE* #66-01398-1
Director's Name and address: Ronald Reed, Possum Run Road, Belleville, 44813
Number of School Districts (LEA's) being served: 16
Service coverage in square miles: 2,358 square miles
Total population of school districts (LEA's) being served: 318,830
Per cent: Inner City 7 *Urban:* 52 *Rural:* 41
Total number of students in school districts (LEA's): 30,000
Per cent: Public: ? *Non-Public:* ?
Total number of students being served by project: 2600
Per cent: Public: 88 *Non-Public:* 12

PROJECT SYNOPSIS

CONTEXT:

1. To teach specific knowledge by using first hand learning situation.
2. To use the out-of-doors as a laboratory.
3. To show man's dependence upon nature.
4. To increase the appreciation of nature's beauty.
5. To give an experience of 24 hour day community living and learning.

INPUT:

Six permanent certified staff.
Four student teachers.
Camp setting with winterized dormitories and dining facilities available for at least 32 school weeks.
A budget of approximately $170,000.
Natural resources - 500 acres of woods, fields, creekbeds, abandoned farm, pond and hills.

PROCESS:

Students come to our program on Monday - leave on Friday. Sixth, seventh and special education (slow learners) totaling 2,600 are involved. Most classes are taught outdoors using the natural setting as the classroom. Student teachers get college credit for day time work and supervise dorms at night. Equipment, salaries, materials, food, and lease are covered by the budget.

PRODUCT:

Our evaluation is not complete. However, from all indications our objectives are being met and the children, the schools, the educators and communities are all enthusiastic with the results.

PROJECT DESCRIPTION:

Project Title: RESIDENT OUTDOOR EDUCATION PROGRAM *USOE* OEG-3-7-#704584-4952
Director's Name and address: Dale L. Carman, 618 High Ave., N.W., Canton, 44703
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 5.6
Total population of school districts (LEA's) being served: 11500
Per cent: Inner City 42.3 *Urban:* 57.7 *Rural:*
Total number of students in school districts (LEA's): 25864
Per cent: Public: 85 *Non-Public:* 15
Total number of students being served by project: 1511
Per cent: Public: 98 *Non-Public:* 2

PROJECT SYNOPSIS

CONTEXT:

To teach citizenship and responsibilities in democratic community; teach principles of natural science, with particular emphasis on ecological relationships in nature; teach principles of conservation; teach health/phys ed. (in general sense); teach other aspects of school curriculum as can be taught well in camping situation (art, math, music, social studies, language arts). Other outcomes: an awareness of individual worth and dignity; an acceptance of increased social responsibility; initiative; appreciation of people of different racial and ethnic backgrounds; improved teacher-pupil relationships.

INPUT:

Federal funds; local funds; two sessions per week for six weeks; YMCA camp facility; Ohio Dept. of Natural Resource personnel; Ohio Natl. Guard (Air Mobile) personnel; U.S. Weather Bureau; local AV and art materials/equipment; local maintenance equipment; chartered bus service. Local director, staff resource personnel; classroom teachers; cadet principals; especially hired personnel (short term duration); volunteer cabin counselors.

PROCESS:

Approximately 150 sixth graders from five different elementary schools bused to camp for three-day sessions (12 sessions); integrated thoroughly into cabins; ten classes in conservation and natural sciences; nature hikes; cabin social activities; assigned student duties/responsibilities.

PRODUCT:

The resource was evaluated by camp staff, teachers, visitors and students at completion of camp session and three months later. Indicate a great degree of success in intergration, social understanding and considerable natural science awareness.

PROJECT DESCRIPTION:

Project Title: P.L.E.A.S.E. (Pollution, Life and Earth Applied Science Enrichment) USOE #67-03810-0
Director's Name and address: Richard S. Phillips, 5000 Shankland Rd., Willoughby
Number of School Districts (LEA's) being served: one
Service coverage in square miles: 31 square miles
Total population of school districts (LEA's) being served: 64,000
Per cent: Inner City______ Urban: 100 Rural: ______
Total number of students in school districts (LEA's): 17,106
Per cent: Public: 76 Non-Public: 24
Total number of students being served by project: 8,599
Per cent: Public: 68 Non-Public: 32

PROJECT SYNOPSIS

CONTEXT:

To provide pollution control instruction and establish air and water pollution monitoring stations; To provide a summer instructional program in field biology and conservation; To provide an animal maintenance area to house animals to be used for display and study purposes; To provide lecture and display services by a qualified and experienced naturalist to enrich classroom instruction; To provide expert leadership for field trips; To establish a film library of slides and original wildlife motion pictures; To provide a series of portable displays to be made into "kits" to be checked out by individual schools; To establish a wildlife center to house offices, animals, films, displays and other equipment.

INPUT:

Project P.L.E.A.S.E was given a grant of $83,000. The three naturalists spend a minimum of 40 hours per week. Occasionally, they also work Saturdays and Sundays. The facilities of the Holden Arboretum are used, as will the project's Nature Center, the classrooms of the Willoughby-Eastlake City Schools, and a pollution detection laboratory located in the Nature Center.

PROCESS:

Project P.L.E.A.S.E. has a schedule covering the entire year. It is based upon the progression of the seasons and changes for each month of the year. The naturalists can go into the classrooms and serve as resource people for grades 5, 7 and 9. They have presented programs on such topics as insect collecting, hibernation, migration, reptiles, pollution, insect anatomy, the Mound Builders, early man in America, fossils, and glaciation. The naturalists also served as guides for 50 field trips at the Holden Arboretum and wrote a 20-page trail guide for the arboretum.

PRODUCT:

Results have been excellent. The naturalists have met, in an expository capacity (teaching - laboratory - field trip situation) more than 10,000 students. Eighty-five teachers, who have used the services of Project P.L.E.A.S.E., fourteen principals and two university professors have evaluated the project.

The only criticisms offered were that the project should try to present materials down to and including grade two.

PROJECT DESCRIPTION:

Project Title: Tri-District Cooperative Development of Land Laboratories for conservation and Outdoor Ed. *USOE* OEG-0-8-#054670-5865

Director's Name and address: Eugene A. Knight, 47 E. Stafford, Worthington

Number of School Districts (LEA's) being served: 3

Service coverage in square miles: 48 7/10

Total population of school districts (LEA's) being served: 52,000

Per cent: Inner City ______ *Urban:* ______ *Rural:* ______

Total number of students in school districts (LEA's): 14,907

Per cent: Public: 89 *Non-Public:* 11

Total number of students being served by project: 4,300

Per cent: Public: 89 *Non-Public:* 11

PROJECT SYNOPSIS

CONTEXT:

General: To increase the quantity and effectiveness of conservation and outdoor education, to develop facilities for such education, and to develop interdistrict cooperation for the improvement of education.

To increase the quantity and effectiveness of conservation education through first-hand experience. To increase the range of grades and curriculum areas in which outdoor education is done. To develop facilities for outdoor education on the grounds of every school. To educate teachers in outdoor education through involving them in the development of facilities and helping them make uses of facilities available.

INPUT:

Money: $54,755 Time: one year, June 15, 1968 to June 14, 1969 Facilities and natural resources: existing school grounds and metropolitan parks Materials: office supplies, teaching aids, reference materials, printing expenses, bus transportation Equipment: (1) Van body truck mobile teaching unit, (1) pick up truck land lab development vehicle, tools Personnel: (1) project coordinator, (1) land laboratory developer, (1) teacher educator, (1) secretary, (1) maintenance man.

PROCESS:

Pilot development of school land laboratories in each of three cooperating districts, guides for their use, and pilot program in teacher education, plan pilot phase of resident outdoor education for elementary schools.

PRODUCT:

It is anticipated that results will be based on measurement of attitudes, opinions and ability of students to relate theory learned in the classroom with actual application to their natural environment.

PROJECT DESCRIPTION:

Project Title: Regional Outdoor Education *USOE* #66-2719
Director's Name and address: Warren C. Gilfillan, 1441 S.E. 122nd St., Portland, 97230
Number of School Districts (LEA's) being served: 80
Service coverage in square miles: 3,742 acres
Total population of school districts (LEA's) being served: 850,000
Per cent: Inner City 50 *Urban:* 35 *Rural:* 15
Total number of students in school districts (LEA's): 234,000
Per cent: Public: 80 *Non-Public:* 20
Total number of students being served by project: 3,100
Per cent: Public: 80 *Non-Public:* 20

PROJECT SYNOPSIS

CONTEXT:

To develop a multi-county program involving 6th grade students in a week-long, resident Outdoor Education experience.

To utilize and enlarge upon the advantages and techniques of Outdoor Education to raise self-concepts, improve motivation, provide supplementary educational opportunities, and improve the teaching of natural science, ecology, and conservation to children.

To build an image for a specific Outdoor Education program which would gain local support and become self-sustaining after project termination.

INPUT:

Staff of two, a director with experience in conservation education and youth camping and an instructional assistant, a 6th grade teacher with experience in Outdoor School, manage the program. Instruction booklets are developed and equipment assembled to conduct an Outdoor School for 6 weeks each fall and spring, within the financial resources from U.S.O.E. A part-time staff of resource instructors, program counselors, cook, and nurse are trained in Outdoor Education concepts. Youth camps are leased to provide comfortable living for 6th graders, close to their nature-oriented outdoor classroom. Teachers and their classes are trained in preparation for their outdoor experience.

PROCESS:

Each week four, intact, sixth grade classes and their teachers move to the Outdoor School site and are assigned an outdoor classroom or study plot. Teachers, prepared at pre-school workshops, combine with resource staff to conduct studies in water, soil, plants, and animals. Children are surrounded by what they study and use all their senses to learn in the natural environment. Cabin groups of 8 to 10 students (2 or 3 students from each class) are under the guidance of Junior Counselors recruited from local high schools. Everyone dines family style in the dining hall, shares all duties necessary to the function of the Outdoor School, and takes part in recreation skills typical of the out-of-doors. Campfires and singing highlight each day.

PRODUCT:

To date, in four Outdoor School sessions, 3,100 sixth-graders from 112 classes, 98 schools, 37 districts and four counties have attended. By student, teacher, parent, and school administrator evaluation questionnaires and critique sessions during and after the Outdoor School, an eminently successful format of operation has evolved. Those related to the program are universal in its praise, a fact best ascribed to by their local tax support. At project end, in June '68, Regional Outdoor Education will expand four-fold under Multnomah County sponsorship with a possible 5,400 students attending in the '68-'69 school year. In three years, all 9,000 sixth-graders in Multnomah County are scheduled to attend along with expected contract participation from four other counties.

PROJECT DESCRIPTION:

Project Title: NATUREALM *USOE #* 4120
Director's Name and address: Wm. M. Barnhart, Assoc. Dir., P.O. Box 87, Ducansville
Number of School Districts (LEA's) being served: 40 (actually a statewide program)
Service coverage in square miles: Statewide
Total population of school districts (LEA's) being served: Available to any school or individual wishing to participate.
Per cent: Inner City ________ *Urban:* ________ *Rural:* ________
Total number of students in school districts (LEA's): Those who wish to participate
Per cent: Public: ________ *Non-Public:* ________
Total number of students being served by project: Those who wish to participate.
Per cent: Public: ________ *Non-Public:* ________

PROJECT SYNOPSIS

CONTEXT:

NATUREALM has two broad objectives:

1. To develop a curriculum guide integrating the natural and social sciences with a base of conservation and ecology.
2. To develop working plans for development of a 1500-acre tract of land at Prince Gallitzin State Park as a conservation outdoor education area. The actual development of Prince Gallitzin State Park is to be undertaken by the Pennsylvania Department of Forests and Waters.

INPUT:

Budget - Title III: $44,000.00; Department of Forests & Waters: $7,000.000.
Time - One year statewide planning.
Facilities - Office space shared with the Region H Planning Staff; 1500 acres of Gallitzin State Park.
Personnel - Director: part-time (5%); Associate Director: full-time; Secretary; full-time; 10 consultants (as needed): Anthropology, Social Sciences, Outdoor Education, Curriculum Specialists, and Editor.

PROCESS:

An outline for the units of the curriculum guide was developed based on the needs of the area in conservation education. Each consultant develops material in his special area of study and forwards the partial unit to the main office where it is integrated into one comprehensive unit. These units are revised and corrected by other consultants and prepared for publication.

Working plans for construction of the park area are developed with each unit of the curriculum guide. The park area will serve as a supplement to the curriculum guide and will be used to teach those concepts that are not or cannot be taught in the classroom.

PRODUCT:

It is hoped that this project will cause increased awareness of the problems caused by man in his relationshop with the environment and a desire to correct or alleviate these problems.

PROJECT DESCRIPTION:

Project Title: Development of a Nature Center *USOE* # 67-2773
Director's Name and address: T. Russell Frank, 409 Easton Rd., Glenside
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 20
Total population of school districts (LEA's) being served: 55,000
Per cent: Inner City ____ *Urban:* 100 *Rural:* ____
Total number of students in school districts (LEA's): 11,500
Per cent: Public: ____ *Non-Public:* 20
Total number of students being served by project: 2,000
Per cent: Public: ____ *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT:

1. To bring a knowledge of the out-of-doors to our students.
2. To bring the students the value of, and the need for, conservation, including a study of pollution.
3. To bring enjoyment through enrichment.

INPUT:

1. We operated two (2) years on a Federal grant.
2. We employed specialists and consultants in formulating the program and conducting workshops for teachers.
3. We have 11 areas of woodland and two very suitable buildings--one a magnificent bird observatory.

PROCESS:

With volunteer help, 2,200 school pupils visit the Nature Center annually with their teachers. A full-time naturalist was employed for seven (7) weeks last summer. Paths at the Center are lined with many wildflowers.

PRODUCT:

The enrichment and enjoyment of a nature center are not measurable. Our teachers have a series of units in Natural Science suggested for their grade level. Nature Center visits follow class study. Our Center, in the midst of 55,000 population, is ideally located for all schools.

PROJECT DESCRIPTION:

Project Title: Study to Determine the Educational Potential of Tyler Arboretum and Jeffords State Park *USOE* #5096

Director's Name and address: Charles C. Ochs, Rose Tree Media School Dist., Media, 190063

Number of School Districts (LEA's) being served: 66

Service coverage in square miles: 944

Total population of school districts (LEA's) being served: 810,000

Per cent: Inner City 25 *Urban:* 72 *Rural:* 3

Total number of students in school districts (LEA's): 222,391

Per cent: Public: 67.6 *Non-Public:* 32.4

Total number of students being served by project: 222,391

Per cent: Public: 67.6 *Non-Public:* 32.4

PROJECT SYNOPSIS

CONTEXT:

Develop appreciation and awareness of the value and beauty of our natural surroundings; develop a sense of responsibility for the preservation and conservation of our natural resources; develop the use of powers of observation as avenues of learning; develop a curiosity about natural phenomena; promote interest in the natural sciences and other curricular areas for avocational and vocational purposes; develop an understanding of the process structure and discipline of science; develop basic knowledge of the natural surroundings.

INPUT:

5 member professional staff, Tyler Arboretum (470 acres), Ridley Creek State Park lands (2,300 acres); $227,140 Title III ESEA grant; 10 community volunteer guides; administrative cooperation of school districts being served; teachers interested in learning to use the outdoors as a learning resource.

PROCESS:

Development of field and classroom units of study and outdoor activity guides and handout materials; In-service training of teachers and supervisors; adaptation of physical facilities for conservation and outdoor education; aquisition of resource materials in the natural sciences and conservation; dissemination of information and materials to schools being served; evaluation of the program.

PRODUCT:

Ever increasing number of teachers bringing their classes to the Outdoor Education Center for field trips; the development of outdoor learning areas by individual schools around the school; increased demand for curricular materials by school districts; interest on the part of community residents in conservation as evidenced by requests for information about the program, weekend visits to the Arboretum, establishment of conservation programs, etc.; applications for enrollment in the teacher training courses; spontaneous remarks of students indicating appreciation of conservation.

PROJECT DESCRIPTION:

Project Title: Central Pennsylvania Outdoor Education Project *USOE* # 66-2179
Director's Name and address Dr. Jerold E. Elliott, 262 Recreation Bldg., University Park
Number of School Districts (LEA's) being served: 23 Central Pa. Counties
Service coverage in square miles: 25,000
Total population of school districts (LEA's) being served: 2,437,684
Per cent: Inner City 13 *Urban:* 49 *Rural:* 38
Total number of students in school districts (LEA's): 216,705 (K-6)
Per cent: Public: 89 *Non-Public:* 11
Total number of students being served by project: 11,000
Per cent: Public: 89 *Non-Public:* 11

PROJECT SYNOPSIS

CONTEXT:

The program has been designed to provide in-service teacher education to develop interest, skills, and to familiarize teachers with resources and methods for making use of the natural environment to give direct experience to the various curriculum areas. It demonstrates exemplary programs in both resident and non-resident outdoor education programs. It develops instructional resources, and evaluates the effectiveness of programs and materials. The final phase includes the disseminat of the information.

INPUT:

The project furnishes leadership personnel and funds to set up orientations, workshops, in-service programs, and sponsors programs for teachers and administrators in the 26 county area it covers.

PROCESS:

Regional orientations have been sponsored for teachers on Saturdays. These have been followed by a series of regional two-day workshops. Out of these meetings have come requests for in-service programs on the local level.

Resident outdoor education programs have been sponsored with teachers and administrators invited to observe the programs.

A three week credit workskop is sponsored through the Pennsylvania State University.

PRODUCT:

Interested teachers throughout the area are beginning to use the out-of-doors as a teaching laboratory. Several schools have begun to initiate plans for resident outdoor education programs financed locally. Outdoor laboratories are being planned in conjunction with several school sites.

There is a new awareness to outdoor education as a teaching method.

PROJECT DESCRIPTION:

Project Title: EARTH *USOE* #68-5935
Director's Name and address: Carlo A. Gamba, 848 Atwood Ave., Cranston, 02920
Number of School Districts (LEA's) being served: 1
Service coverage in square miles:
Total population of school districts (LEA's) being served: 73360
Per cent: Inner City 40 *Urban:* 40 *Rural:* 20
Total number of students in school districts (LEA's): 15,000
Per cent: Public: 90 *Non-Public:* 10
Total number of students being served by project: 850
Per cent: Public: 90 *Non-Public:* 10

PROJECT SYNOPSIS

CONTEXT:

1. Increase students awareness of the possibilities of the wise use of the remaining natural resources of Rhode Island.
2. To include in the present school curriculum methods and ideas that demonstrate that soil, water, air, plant and animal resources can be conserved while being used.
3. To develop a series of coordinated field trip and related out-door activities to observe the effects of man's influence on the limited natural resources in this general area.
4. To provide an effective, practical program of public service that will alleviate the effects of many of these health hazards that have resulted from this industrial and commercial exploitation.

INPUT:

1. $28,000 ESEA Title III Grant
2. Part-time personnel-administrative staff of Cranston School Department, University of Rhode Island, Classroom teachers, State Department of Education and Natural Resources, other related agencies.
3. Facilities-Two Elementary Schools, Alton Jones Campus-University of Rhode Island, local conservation sites and areas of pollution of natural resources.
4. Necessary materials purchased with grant monies and in-kind contribution by LEA.

PROCESS:

1. In-Service for all Cranston Teaching Staff by the University of Rhode Island, to prepare curriculum materials in Conservation Education specifically for geographic area to be served.
2. A six-week course in the project schools taught by classroom teachers using formal curriculum materials prepared during in-service program.
3. Periodic one-day field trips for all students in project schools.

PRODUCT:

1. The program would provide a consciousness for the need for wise use and rehabilitation of natural resources in the local school system which does not now exist.

PROJECT DESCRIPTION:

Project Title: An Outdoor Education Curr. for all Seasons *USOE* 8-8 #004324-0014
Director's Name and address: Lyle R. Tregaskis, 50 N. Center, American Fork
Number of School Districts (LEA's) being served: 3
Service coverage in square miles: 2,143
Total population of school districts (LEA's) being served: 120,000
Per cent: Inner City ____ *Urban:* 93.4 *Rural:* 6.6
Total number of students in school districts (LEA's): 33,700
Per cent: Public: 96.5 *Non-Public:* 3.5
Total number of students being served by project: 33,700
Per cent: Public: 96.5 *Non-Public:* 3.5

PROJECT SYNOPSIS

CONTEXT:

A. To develop a K-12 curriculum for an outdoor field experience program for the three school districts of Utah County and the private schools also within the county.
B. To coordinate with governmental (forestry, park, and conservation) agencies in developing a school curriculum which will reflect the major problems of these agencies.
C. To provide a selected group of teachers with field training for directing the outdoor educational program.
D. To develop information files and kits on outdoor educational resources. These files would be used to prepare students for field experiences. Multi-media approaches should be used.
E. To develop field laboratory sites, and nature trails. (Note: The sites and trails are a part of our project for the coming year.)

INPUT:

The following state and federal agencies have been involved in the development of the project: Soil Conservation Service, County Agent (USU Extention Service), Forest Service, US Park Service (Timpanogos Cave National Monument), North Utah County Water Conservancy District, Utah State Fish and Game Dep't, and to a lesser degree the Bureau of Land Management. Also involved have been teaching and administrative personnel from all levels of our school system. Near-by Brigham Young University personnel have also assisted. We are attempting to utilize the greatly varied environment about us--Utah Lake, adjoining desert areas, beautiful mountain resources, etc. Our schools have not made much effort to use these resources in the teaching process. We must, if we are to continue to enjoy our area. Problems of pollution, water resources, land usage, etc., need broad understanding.

PROCESS:

An overview of our situation was developed in the form of a concentrated study of the area. This over-view was a seminar in which each of the agencies listed above and some other groups presented their responsibilities and then some field trips were conducted so everyone could see what was under discussion at the site. The curriculum committee was then assigned to develop curriculum materials which would be useful to teachers at all levels to help our students understand their environment. The main concentration this year has been on the development of field trips just a few miles from the schools. Working with the Utah State Dep't of Public Instruction, we have developed a key punch card for this purpose.

PRODUCT:

Our product is the development of these suggested field experiences keyed to subject, location, etc., and so developed that several of the disciplines may coordinate together on each of the trips. We are interested in the social history as well as the science background in these sites. Recreational and art interests are also represented. This key punch card, has evolved during the project and was not considered when the project started. There is no end in sight for the development of our cards. We will go until our money runs out and then I am sure some of the committee will continue writing more. We plan that each teacher would have a complete set of the cards

PROJECT DESCRIPTION:

Project Title: Rutland Nature Area Development Project *USOE* #68-5501
68-05501-0
Director's Name and address: Thomas G. Chesley, Dann School, Rutland
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 25 square miles
Total population of school districts (LEA's) being served: 19,000
Per cent: Inner City ________ *Urban:* 19,000 *Rural:* ________
Total number of students in school districts (LEA's): 5,536
Per cent: Public: 60 *Non-Public:* 40
Total number of students being served by project: 5,536
Per cent: Public: 60 *Non-Public:* 40

PROJECT SYNOPSIS

CONTEXT:

We propose to conserve a natural marsh area to serve as an outdoor classroom.
We propose to develop a curriculum, K-12, whose aim will be a "total environmental education program."
We propose to conduct an in-service teacher training program in cooperation with Castleton State College.
We propose to develop the marsh area by creating two ponds, walkways, observation areas, and to do selective planting in the area surrounding the marsh.

INPUT:

Planning and development involve several local organizations, such as the Rock Mineral Club, the Green Mountain National Forest, and United States Soil Conservation Service. Castleton State College will offer an in-service course in Field Biology, and train teachers in techniques of observation, identification, use of microscopes, etc. Each school in the area served will be equipped with the necessary materials and equipment (insect nets, chemicals, thermometers, slides, etc.). The function of the in-service course will be to develop a curriculum containing concepts, techniques, background information, and suggested grade placement, which will be available to all teachers in the area.

PROCESS:

Under the direction of the United States Soil Conservation Service, development of the area will be done during the spring and summer of 1968. The Trades and Industry department of the Rutland High School, with the local school maintenance department, will construct and install piers, platforms, shelters, and display cases. Planting will be done by the students of the Trades and Industry department. Teachers who participate in the in-service course will develop the curriculum, provide classroom trails of the activities, and present their work to all teachers. Title II funds of the Elementary and Secondary Education Act are being used to assemble a collection of related books and materials which will be housed near the marsh area and be available to all teachers and students.

PRODUCT:

We hope the project will result in an improved science and conservation program for the students, the development of a 'conservation ethic' among the students, a change in teaching techniques in both science and social studies, and that the project will serve as a model for further curriculum changes, and for increased use of community resources in school programs.

PROJECT DESCRIPTION:

OEG-3-7-704678

Project Title: S. C. O. P. E. *USOE #* -4866

Director's Name and address Edward Wolcott, Wythe Co., Wytheville, 24382

Number of School Districts (LEA's) being served: 1

Service coverage in square miles: 460

Total population of school districts (LEA's) being served: 23,327

Per cent: Inner City ___ *Urban:* ___ *Rural:* 100

Total number of students in school districts (LEA's): 5,089

Per cent: Public: 100 *Non-Public:*

Total number of students being served by project: 130

Per cent: Public: 100 *Non-Public:*

PROJECT SYNOPSIS

CONTEXT:

Objectives:

a. To develop and improve physical skills.
b. To develop a beeter appreciation of proper health habits.
c. To promote social development and adjustment.
d. To develop more self and group responsibility.
e. To develop a better understanding of living close to nature.
f. To provice a feeling of self reliance.

INPUT:

The project, (planned and written by M.W. Witten), required $16,169.66 in funds to finance the four week camp. An abandoned church camp located in an excellent nature setting was rented. Mountain trails with their natural resources, served as the classrooms for most classes. Handicraft materials, health supplies and sleeping mattresses constituted the major expenses for supplies and equipment; many tools were borrowed from schools. A staff of fifteen was employed for a five week period.

PROCESS:

The 130 students were divided into four groups of approximately 32 campers per week thus giving each group a week's experience. These 32 per week were further divided into four groups of eight to ten students for their various classes. These students participated in the Nature Study, Health Habits, Swimming, Lunch, Equitation, Handicrafts, Sports, First Aid, Dinner and a variety of programs at night.

PRODUCT:

Based on instructors and counselors evaluations, these students gained notable physical skills, especially swimming and riding. They were given instruction in proper eating and health habits as well as desirable manners. Since many were strangers at the beginning of the week, new friendships were sought and many were achieved. They learned group responsibility and self reliance during this experience since both, sharing experiences as well as materials, was necessary on the part of the campers. The necessity of working together was impressed upon the students throughout the week.

PROJECT DESCRIPTION:

Project #4718
Grant #OEGO-8-

Project Title: M.G. Outdoor Education Conference & Service Complex 047187-1862-(056)
Director's Name and address: James K. Lowry, 200 Armory Dr., Beckley, 25801
Number of School Districts (LEA's) being served: 1
Service coverage in square miles: 610
Total population of school districts (LEA's) being served: 77,826
Per cent: Inner City ____ Urban: 29.9 Rural: 70.1
Total number of students in school districts (LEA's): 18,761
Per cent: Public: 98.42 Non-Public: 1.58
Total number of students being served by project: 1,200
Per cent: Public: 99.75 Non-Public: .25

PROJECT SYNOPSIS

CONTEXT:

The objectives of this proposal are to provide a complex which can provide a comprehensive resident outdoor education program, house a biological service center, an earth science museum, and provide a program to utilize it as an educational and cultural conference center. The complex is expected to be an exemplary project for West Virginia.

INPUT:

Facilities include 68 acres with 15 summer occupancy buildings on site. An adjoining 500 acres can be utilized in the program.

Director and Secretary = Administration - Full Time.

10 Teacher-writers - develop curriculum materials, museum and service center. The equivalent of 1 month.

Consulants - Assist with program planning, development of master plan of facilities, guide the teacher-writers.

Advisory committee composed of representatives of state and local organizations interested in proposed program.

PROCESS:

$23,579 planning grant utilized to employ personnel, retain consultants, allow staff to visit exemplary centers and observe programs, of a similar nature, in progress. Informing and soliciting aid and support of local organizations by public meetings and correspondence. Primary activity is to develop and finalize plans for the complex.

PRODUCT:

Development of curriculum guides in: language arts, mathematics, physical education, helath, and recreation, science, and social studies. Complete plans for the museum, the service center, the lay-out of trails and location of conservation practice areas, and the renovation of facilities to carry out the proposal.

PROJECT DESCRIPTION:

Project Title: Cooperative Work-Learn Conservation and Resource-Use Program *USOE #* 3-7-662646-1517
Director's Name and address: Paul L. Gundlach, P.O. Box 488, Portage, 53901
Number of School Districts (LEA's) being served: 23
Service coverage in square miles: 3,000 (Approximately)
Total population of school districts (LEA's) being served: 100,000
Per cent: Inner City 8 *Urban:* 31 *Rural:* 61
Total number of students in school districts (LEA's): 31,431
Per cent: Public: 88 *Non-Public:* 12
Total number of students being served by project: 31,431
Per cent: Public: 88 *Non-Public:* 12

PROJECT SYNOPSIS

CONTEXT:

1. To develop a plan for integrating instruction of our natural resources into the existing schools curriculum.
2. To organize a summer conservation education program for Junior High School students that will provide direct and real experiences with our natural resources.
3. To promote the utilization of school owned lands and other community teaching resources available to them.
4. To create an interest and awareness in students, teachers, and communities for the importance of conservation and resource management.

INPUT:

The project budget for this program, including both Federal and local funds, was $84,000. A project director is the only full time professional person employed. Fifteen part-time instructors were employed for a ten-week period during the summer months. Consultant personnel and resource personnel were utilized from schools of higher learning, participating schools and other concerned agencies. The student experience program is conducted on school or state owned properties, material and equipment needs are provided by the project, participating schools and cooperating agencies.

PROCESS:

Approximately 600 Junior High School students participated in the summer experience program. Experiences and activities were planned cooperatively by the schools, conservation organizations and project personnel. In-service programs for teachers are organized throughout the school year and for a one-week period in the summer. These programs are geared toward utilizing resources available in teaching about our natural resources, and promoting the integration of conservation concepts into the schools' curriculum. A committee of teachers and conservation consultants are working on a scope and sequence conservation curriculum for schools to use as a model in developing their own plan.

PRODUCT:

The evaluation of the first year's program was mainly based upon observation. Work is being done on an instrument that may measure attitudinal change of students. We intend to use this instrument with enrolled students this summer.

On the basis of the first year's evaluation, satisfactory progress was evident for objectives 2-3 and 4. It is hoped a curriculum plan will be available soon.

PROJECT DESCRIPTION:

Project Title: Outdoor Education for Handicapped Children *USOE* #67-04136-0
Director's Name and address: Raymond S. Urbas, Campus Sch. Bldg., W.S.U., Stevens Point, 54481
Number of School Districts (LEA's) being served: 43
Service coverage in square miles: 10,000
Total population of school districts (LEA's) being served: 250,000
Per cent: Inner City 0 *Urban:* 80 *Rural:* 20
Total number of students in school districts (LEA's): 105,000
Per cent: Public: 85 *Non-Public:* 15
Total number of students being served by project: 325
Per cent: Public: 85 *Non-Public:* 15

PROJECT SYNOPSIS

CONTEXT:

The OUTDOOR EDUCATION FOR HANDICAPPED CHILDREN project is a two phase program: One group of about 40 retarded children is enrolled in a six-week "summer school" in a camping setting and live in. They receive instruction in basic academic skills, including reading, numbers, language therapy, speech therapy, and perceptual-motor therapy. This group also receives recreational and related activities in the outdoor setting. The second groups are composed of 50 campers each week for one week of recreational and related outdoor activities. Generally, stimulating summer activities are offered both in educational and recreational areas. A major goal is to provide mentally retarded children with a summer of enriching activities and reduce learning regression.

INPUT:

The major requirements of the program are:

1. A summer camping facility which can adequately house 135 children and adults.
2. Professional and non-professional personnel, including supervisors, teachers, counselors, therapists, and operational staff. A total of 43 adults works with 100 children.
3. Special teaching and therapy materials are required.
4. A natural outdoor setting, including water; is required.

PROCESS:

In each of the two programs of the project, mentally retarded children are carefully supervised, counselled, and trained in specific educational and recreational areas. Activities are planned on a 24-hour day basis. The group receiving educational instruction for the six-week period is carefully pre and post-tested in several instructional areas for the purpose of evaluation and statistical analysis. The one-week groups are evaluated subjectively.

PRODUCT:

Statistically significant gains were made in five areas of perceptual-motor development, and in numbers work. The regression factor in reading and language skills disappeared. The results of a follow-up questionnaire to parents and teachers indicated that most children who attended the camp "grew-up" socially and were improved in terms of behavior. Thus, behavior modification became an important byproduct of the camping experience.

PROJECT DESCRIPTION:

Project Title: Western Wyoming Heritage- Culturally, Educationally, Recreationally USOE # 67-03241

Director's Name and address: Patrick J. Moran, Box 832, Green River, 82935

Number of School Districts (LEA's) being served: 1

Service coverage in square miles: 5200 square miles

Total population of school districts (LEA's) being served: 5500

Per cent: Inner City ____ Urban: 99 Rural: 1

Total number of students in school districts (LEA's): 1318

Per cent: Public: 100 Non-Public: ____

Total number of students being served by project: ____

Per cent: Public: 100 Non-Public: ____

PROJECT SYNOPSIS

CONTEXT:

The major objective of the project is to exemplify an economically feasible and effective program of recreation education correlated to this geographic area and the surrounding cultural heritage.

INPUT:

Federal Grant $43,327.00
Local Contribution $9,351.00

The school board and administration have provided a maximum amount of flexibility in utilizing the available facilities.

Voluntary assistants and an imaginative staff provide the extra effort that is required to have a successful program.

The natural community interest provides for excellent public relations.

PROCESS:

The following programs arranged in a dovetailed schedule provide for individual involvement: Anthropology, Archery, Camping and Survival, Fishing, Fly Tying, Geology, Handloading, Hunter Safety, Ice Skating, Lapidary, Oil Painting, Photography, and Water Skiing. Scuba Diving, Boating Safety, and Sailing will complement the program beginning July 1.

PRODUCT:

We have observed total community interest in the changing vision of education potential.

This ESEA, Title III project has created a positive appetite for worthwhile allied activities for both school-age youth and adults in the community.

SUPPLEMENTARY SECTION

This section contains Title III project descriptions listed by states, as they appeared in the U.S. Office of Education bulletin - SR-67-24, PACE OUTDOOR EDUCATION PROJECTS FUNDED IN FY 1966 AND IN FY 1967.

At the time this booklet was delivered to the printer, the New Jersey State Council for Environmental Education had not received a project description on the form used in the main body of this document.

ALABAMA

CITY: Selma OE No. 67-05022 (7)
Counties served: Dallas

Further information: Joseph Pickard, Superintendent, Selma City Public Schools, Selma, Alabama 36701, (205) 874-7621.

CALIFORNIA

FRESNO: Fresno County Schools Operational Project OE 67-3038

Central California Laboratory for Learning: Extension

Description:

The use of environmental resources for improving and vitalizing instruction, emphasizing science, will be demonstrated in elementary and secondary schools. Regular classes will be transported to a site for study of the total environment of the area, whether it be a selected site in the mountains, coast, valley, or an urban community. The project also includes a summer outdoor science program for selected junior and senior high students.

Further information: Harold L. Coles, County Superintendent of Schools, 2314 Maripose St., Fresno, California 93721, (209) 268-6011

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SAN ANDREAS: Office of the County Superintendent of Schools
Planning Project OE No. 66-1637

Conservation, Recreation and Outdoor Science School (Project CROSS)

Description:

A vocational school for 11th and 12th grade students will be planned.

Further information: Charles R. Baker, Director of Pupil Personnel Services and School Psychologist, P.O. Box 518, San Andreas, 95249

FLORIDA

SARASOTA: Sarasota County Board of Public Instruction
Planning Project OE No. 66-231

Sarasota County Educational Enrichment Centers

Description:

A four-county educational service and enrichment center is to be planned on the basis of surveys of community needs and studies of existing service programs. The center may include the following sub-units: Marine Research and Teaching Laboratory, Mobile Field Laboratory, Earth-Space Laboratory, Teaching Greenhouse and Ponds, and Wildlife Campsite. An additional sub-unit is to be the Riverview High School Educational Enrichment Center which will provide services for pupils with persistent learning difficulties, a special project in home economics for dropouts, and a program in corrective physical education. Particular attention is to be given to meeting the needs of lower socio-economic groups of the large number of retirees in the community, and of private school children who may not have access to modern educational facilities. Pilot projects are to be conducted as part of the planning. Number of persons to be served: 171,340 children and adults.

Further information: Dr. Thomas W. Gulford, Superintendent of Public Instruction
2418 Hatton Street, Sarasota, (813) 955-0261

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LAKE CITY: Columbia County Board of Public Instruction
Operational Project OE 67-3397

Trace - 3 Rivers Activities Center for Education

Description:

An activities center, designed to serve the students in the public and non-public schools of six counties, will offer music and art programs to accelerate language development and reading ability. A physical education program will be developed in coordination with the music activities and an outdoor museum will utilize the abundant natural and historical resources of the area to increase the center's capability for cultural enrichment.

Counties served: Baker, Union, Columbia, Gilchrist, Dixie, Suwanee

Further information: Buford H. Galloway, Superintendent of Public Instruction,
Columbia County Board of Public Instruction, P.O. Box 1148
Lake City, 32055, (204) 752-0787

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PENSACOLA: Board of Public Instruction, Escambia County
Planning Project OE No. 66-2185

Escambia-Santa Rosa Humanities Curriculum Center

Description:

A humanities curriculum development center will be planned to serve elementary and secondary students in a two-county area; to include a central library, an outdoor biology laboratory, a solarium, an aquarium, a production and performing arts center, an art gallery, an audio-visual center, and accommodations for in-service training and curriculum development.

Further information: James E. Hall, Superintendent of Public Instruction,
P.O. Box 1470, Pensacola, 32502, (904) 432-6121

IDAHO

COEUR D'ALENE: School District No. 271
Planning Project OE No. 66-388

Program of Outdoor Education

Description:

A cultural and educational summer program for entering seventh-grade pupils is to include counseling to help them in the transition from elementary school to junior high school; physical fitness and health programs; recreational activities; specialized instruction such as nature study; and special assistance to handicapped children, disadvantaged youngsters, and pupils from rural areas. A planning committee is to seek the cooperation of other agencies; arrange for a site and such auxiliary services as food, housing, health, and transportation; select professional and non-professional staff, consultants, and visiting artists and lecturers; and design a pilot program for 200-300 pupils. Among the purposes of the program are making children aware of their national heritage, promoting conservation, and providing opportunities for children of various geographic, religious, socio-economic, and ethnic backgrounds to learn to work together. Number of persons to be served: 3,500 incoming seventh-graders from 30 school districts and 18 private schools in 10 counties.

Further information: S. Clay Coy, Superintendent of Schools, School District No. 271, 118 North 7th Street, Coeur d'Alene, 83814, (208) MO4-9297

INDIANA

GARY: Community School Corporation - School City of Gary
Operational Project OE 67-4030

Deep River Outdoor Education Center

Description:

An outdoor education center, providing facilities and environment for learning experiences that cannot be fully carried on in a classroom, will be established to develop students' understanding of their relationship to the outdoor environment through the interrelationship of the language arts, the sciences, and other learning areas. A program for fifth and sixth graders from public and non-public schools will be offered on a school day basis, totaling three days for each student during the school year. All other students in the district will use the center for scheduled field trips. A summer program will also be planned for the center.

Counties served: Lake

Further information: Lee R. Gilbert, Superintendent, Community School Corporation, School City of Gary, 620 East 10th Place, Gary, 46402, (219) 886-3111

IOWA

BETTENDORF: Bettendorf Community School District
Planning Project OE No. 66-2596

Outward Bound

Description:

A program will be planned to supplement the existing guidance program in which trained counselors will serve as permanent class guides. One guide will work with 160 students both in in-service and out-of-school activities

BRETTENDORF (cont'd).

during their secondary school experience. Guides not only will assist to develop programs to meet pupil needs, but will attempt to motivate students to participate in appropriate school programs and outside activities.

Further information: Dale E. Strotman, Superintendent of Schools, Bettendorf Community School District, Bettendorf, 52722, (319) 355-5381

LOUISIANA

ST. MARTINVILLE: St. Martin Parish School Board

Operational Grant OE No. 66-1516

Outdoor Educational Center

Description:

The Applicant would establish, operate and develop an outdoor laboratory to be used for student research and individual projects. The facility would be located on a 6 acre site presently owned by the school district. The basic program used would be a rather recently developed experimental Biology program geared mostly for "upper spread" students.

Further information: L. H. Boulet, Superintendent, 305 Washington St., St. Martinville, 70582, (318) 394-6262

MARYLAND

ELKTON: Cecil County Public Schools

Operational Project OE 67-3849

Out-of-Doors, A Summer Science Program for Elementary and Secondary School Students

Description:

A six-week summer course for selected scientifically oriented students in grades 1 through 12 will concentrate on individualized study of Maryland geography, geology, plant and animal life, and conservation. Combination classroom-laboratory-field trip experiences will enrich scientific learning beyond the normal school program of the school district.

Counties served: Cecil

Further information: Robert A. Gibson, Superintendent of Schools, Cecil County Board of Education, Booth Street Center, Elkton, 21921, (301) 398-0400

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OAKLAND: Garrett County Board of Education

Planning Project OE No. 66-1154

Indoor-Outdoor Science Center

Description:

Two model science centers will be planned to serve all students in the County-an indoor center in the southern part of the County and an outdoor one in the northern part.

MARYLAND

OAKLAND (Cont'd).

Further information: Willard L. Hawkins, Superintendent, Board of Education of Garrett County, Oakland, 21550, (301) 334-3991

MICHIGAN

GRAND HAVEN: Grand Haven Board of Education

Planning Project OE No. 66-2582

Integrating Outdoor Education with a Flexible Academic-Vocational Curriculum

Description:

The adaptablility and flexibility of the elementary and secondary curriculum will be explored as it relates to meeting the academic and vocational needs of the terminal and marginal student, the potential dropout and the dropout; a K-12 integrated outdoor education program will be developed.

Further information: R. Van Volkinburg, Superintendent of Schools, Grand Haven City Schools, 734 Park Street, Grand Haven, 49417, (616) 842-0430

MISSOURI

EDINA: Knox County R-I School District

Planning Project OE No. 66-2546

Biological and Soil Conservation Laboratory

Description:

An outdoor laboratory with a lake, terraces, waterways and an area where natural trees, shrubs, and grasses will grow will be developed; programs for science and vocational agricultural classes will be developed.

Further information: Richard M. Kimble, Know County R-I School District, P.O. Box 403, Edina, 63527, (816) EX7-2192

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HIGGINSVILLE: Higginsville School District C-2

Operational Project OE 67-3297

Outdoor Laboratory in Field Ecology and Establishment of an Ecological Museum

Description:

A pilot program will be established to enrich the high school science curriculum and increase the interest and understanding of students in the areas of science. The program will include field trips, an outdoor laboratory, guest lecturers, and an ecological museum.

Counties served: Lafayette

Further information: Lewis W. Hobson, Superintendent, Chief Administrator, Higginsville School, 2116 Main Street, Higginsville, 64037, (816) 584-2901

MONTANA

BILLINGS: School District No. 2, Yellowstone County
Operational Project OE No. 66-685

Billings Extended School Year--Grades 1-12

Description:

The school year would be extended 7 weeks during the summer to offer remedial and enrichment courses for all students, grades 1-12, who want or need such courses. Courses to be offered will include remedial reading and mathematics, speedreading and comprehension, creative writing, field biology, exploring music, oil and water color painting, comparative economic systems, college-preparatory reading, speech, conversational French, Spanish, and German. New materials, devices, and techniques are to be tried, such as programmed instruction, reading machines and laboratories, new audio-visual aids, teacher aids, and student teachers working with experienced teachers. Emphasis will be on greater flexibility in organizing and presenting subject matter, and in developing and trying new ideas and materials in order that the tested innovations could be used to strengthen the regular school year programs. Evaluation of project will include achievement testing, follow-up of students during regular school year, parent-teacher conferences, public opinion poll, survey of reduction in school-dropout rate, diagnostic testing, and teacher and student evaluations. Approximately 5,000 students in public and private grade and high schools will be served.

Further information: William A. Serrette, Administrative Assistant, 101 10th St. West, Billings, (406) 252-6608

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ALBERTON: Alberton Joint School District # 2
Operational Project OE No. 66-868

Outdoor School in Conservation

Description:

A 7-day residential conservation camp for sixth-and seventh-grade children will provide instruction in conservation and the need for conservation in western Montana.

Further information: Donald A. King, Director of Outdoor School, Alberton, (406) 722-4490

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GREAT FALLS: School District # 1, Cascade County
Planning Project OE No. 66-1583

Planning Project for a Pilot Study in Conservation Education

Description:

A pilot project for a conservation education program will be planned; telelectures, mobile units, camping, and field studies will be used by the pilot schools.

Further information: Margaret E. Adams, Elementary Consultant, P.O. Box 2669, Great Falls, (401) 761-5800

MONTANA

MISSOULA: Missoula County High School Board of Trustees
Project Number DPSC 66-2692

Proposal to Establish and Maintain a Wildlife Study Area

Description:

Conservation, grades 7-12, outdoor programs, biology, in-service teacher education, natural science. An outdoor education laboratory will provide opportunity for all science and some special education classes in a county-wide school system to (1) develop appreciation and understanding of natural resources, (2) receive experiences in biotic and abiotic communities, (3) design and carry-out scientific experiments and original studies. Each class will participate in extensive field activities for one full day. The classes will be transported to the outdoor laboratory located at a site selected to assure a diversity of habitat, accessibility during all seasons, and a proximity to the applicant interested. In-service teacher training will precede class visits to the site and implement the conservation and scientific instructional potential of the area. Approximately 3,500 secondary school students will participate.

Further information: Harold G. Knapp, Missoula County High School, South Avenue and Bancroft, Missoula, 59801

NEW YORK

NEW PALTZ: Ulster County Board of Cooperative Educational Services
Operational Project OE No. 66-1522

Mid-Hudson Regional Supplementary Educational Center's: (PINE) Projects in Imaginative Nature Education

Description:

Year-round indoor-outdoor educational programs will be conducted at a 125-acre nature center to supplement the natural science curriculum.

Further information: Dr. Raymond Kenyon, Director, Mid-Hudson School Study Council, Research and Development Project, New Paltz, (914) 256-2531

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PATCHOGUE: Board of Cooperative Education Services, Suffolk County
Project Number BPSC 66-1268

SCOPE-SEC, New York

Description:

This project will be funded for a third year with a strong emphasis on environmental education, with particular reference to biology.

Further information: Victor Gerhard, Acting Director, SCOPE-SEC., 20 Church Street, Patchogue, (516) 475-7800

OHIO

AKRON: Akron Board of Education

Operational Project OE No. 66-1329

Junior Explorers-Learning Centers

(Summer Creative Learning Centers for Elementary School Pupils)

Description:

Seven centers will be established for summer training of potentially creative students in grades 4-6 who need to be encouraged in the natural sciences through outdoor and cultural education.

Further information: Mrs. Theresa Haney, Director Special Resources and Experimental Programs, Akron Public Schools, 70 N. Broadway, Akron, 44308, (216) 253-2111

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BROOKVILLE:

OE No. 04628(7)

M.G. Multi-Sensory Approach to Outdoor Education

Counties served: Montgomery

Further information: Carl D. Hammond, Superintendent of Schools, Brookville Local Schools, 106 Hill Street, Brookville, 45309, (513) 833-2181

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CLEVELAND: Warrensville Heights City Board of Education

Planning Project OE No. 66-210

Humanities Program

Description:

An interdepartmental humanities approach will be planned to replace traditional curricular areas in grades 10 through 12. Students of all ability levels are to be offered integrated courses in literature, social studies, music, art, and science by teaching teams of subject specialists. Flexible class modules will be developed for group discussions, and individualized instruction. Music and art are to be included as non-laboratory courses at each grade level. A multimedia approach will make use of educational television, field trips, outside speakers, instrumental and dramatic groups, films, museum slides and demonstrations. Planning is to include developing faculty abilities in innovation and creative teaching. Number of persons to be served: 800 secondary school students.

Further information: George B. Hettinger, Curriculum Director, Warrensville Heights City Board of Education, 4500 Warrensville Center Road, Cleveland, 44128, (216) 752-8585

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JEROMESVILLE:

OE No. 67-04618(7)

M.G. Hillsdale Outdoor Classroom Development and Utilization Program

Counties served: Ashland

Further information: Ben Shaver, Superintendent, Hillsdale Local Schools, RD #1, Jeromesville, 44840, (419) 368-6851

OHIO

MENTOR: Mentor Exempted Village School District Board of Education
Planning Project OE No. 66-2094

Indoor-Outdoor Educational Recreational Planning Program

Description:

An outdoor educational program will be designed to relate the child's appreciation for the interest in nature with the need to develop basic concepts, skills, and understandings through meaningful outdoor recreational experiences.

Further information: H. M. Wilson, Jr., Clerk-Treasurer, 8979 Mentor Avenue, Mentor, 44060, (216) 255-4444

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ONTARIO: Springfield Local School District
Operational Project OE No. 66-1398

Mohican School in the Out-of-Doors

Description:

Learning experiences will be provided in conservation, natural science, astronomy and democratic living, in an outdoor setting.

Further information: D. D. Rummel, Superintendent, Springfield Local Schools, Ontario, (419) 774-2185

PENNSYLVANIA

ABINGTON: Abington School District
Planning Project OE 67-2773

Science Center

Description:

A bird observatory and an existing building on a 10-acre tract will be used for the study of the natural sciences and conservation through the implementation of three previously developed teaching units for high school biology at the primary, intermediate, and high school levels. Major emphases will include: (1) acquainting teachers with the content of these units and their application to the regular science program; (2) testing the effectiveness of the units in actual use; and (3) making necessary revisions of the units and developing additional ones.

Further information: Thomas R. Bowman, Superintendent of Schools, 1841 Susquehana Street, Abington, 19001, (215) 884-4700

TENNESSEE

TULLAHOMA
OE No. 67-0439(7)

Outdoor Science Laboratory Program

Counties served: Coffee

Further information: Ralph E. Evans, Superintendent, Tullahoma City Schools, Administration Building, S. Jackson Street, Tullahoma, 37388, (615) 455-5421

TEXAS

CORPUS CHRISTI: Flour Bluff Independent School District
Planning Project OE No. 66-1258

Coastal Bend Educational Project: Outdoor Education and Human Development

Description:

The purpose of this project will be to organize teachers, Future Teachers of America members and Student Education Association members in study groups to devise instructional plans, prepare laboratories, conduct observed activities and experiments, and observe exemplary programs in outdoor education, human development and conservation.

Further information: W. H. Howard, 2505 Waldron Road, Corpus Christi, (512) WE7-1486

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HOUSTON: Houston Independent School District
Planning Project OE No. 66-86

Texas Gulf Coast Science Educational Resources Center

Description:

A detailed analysis will be made of the need in the Gulf Coast area, which includes Harris and adjacent counties, for a Science Educational Resources Center, and information will be collected about ways and means of meeting the need. The activities of the proposed center would be to demonstrate new ways to teach laboratory science and do research; to make scientists available to assist instruction; to establish procedures for scientific field trips; to organize research programs to test materials and methods of science instruction; to establish in-service programs; to plan student projects in cooperation with institutions of higher education; and to develop television and radio programs. Several existing pilot projects will be extended and the feasibility of a number of projects will be established, including traveling museum exhibits and use of computer retrievable library systems. This project is estimated to serve 500,000 elementary and secondary science students.

Further information: Joseph Strehle, Supervisor of Science, Houston Independent School District, 1300 Capitol, Houston, 77002, (713) CA4-9871

VIRGINIA

ARLINGTON
OE No. 67-04611(7)

Revitalizing Learning Through Ecology, K-12

(Teachers and Community Build a Nature Center)

Counties served: Arlington

Further information: Ray E. Reid, Division Superintendent, Arlington County School Board, 4751 North 25th Street, Arlington, 22207, (703) JA 2-7700

WASHINGTON

SEATTLE: Shoreline School District No. 412 Operational Project OE No. 66-2682

An Interdisciplinary Outdoor Education Program

Description:

School grounds will be used to study plants, rocks, and insects. Students will use a plot of ground now available to develop nature trails and an area for biology, English and art classes. A site on a salt water beach, which includes forest, swamps. and a variety of uninhabited lands, will be used.

Further information: Edgar F. Neal, Specialist in Outdoor Education, Shoreline School District No. 412, N.E. 158th and 20th Streets, Seattle, 98155, (206) EM 2-7900

WYOMING

LANDER: School District #1, Fremont County Planning Project OE No. 66-1044

Conservation Center of Creative Learning

Description:

An ecology-oriented conservation center and workshop will be planned to improve the teaching of the value of our natural resources for students in Wyoming and surrounding States.

Further information: Jerry Ruzicka, 9th and Sweetwater Streets, Lander, 82502, (307) 332-4040

The New Jersey State Council for Environmental Education extends its thanks to:

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